THE
University of Vermont
MEDICAL CENTER

By Courier & Email *Office of the General Counsel*

January 3, 2017

Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
89 Main Street, Third Floor, City Center
Montpelier, VT 05620

Re: Letter of Intent and Certificate of Need Application
for an Electronic Health Record Replacement Project

Dear Donna:

On behalf of The University of Vermont Medical Center, I am pleased to submit the following documents in connection with our Certificate of Need application for the replacement of the current electronic health records and related information technology systems ("EHRs") at UVM Medical Center and three of the UVM Health Network's other member hospitals with a unified EHR system (the "Project"):

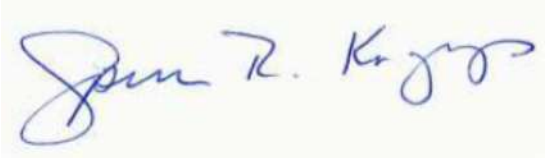
1. Letter of Intent, requesting expedited review;
2. Verification under Oath, signed by John Brumsted, MD;
3. Certificate of Need Application with:
    a. A Narrative Description of the Project;
    b. A detailed response to the applicable CON criteria, including the HRAP CON standards;
    c. Financial Tables; and
    d. Applicable attachments to the CON application.

Since we are requesting expedited review, we understand that your office will take care of the public notice requirements in accordance with 18 V.S.A. § 9440(c)(5). I also understand that your office will invoice us for the application fee.

We look forward to receiving your decision on our request for expedited review and to working closely with you during the review process. If you or any members of the GMCB staff have questions concerning our application materials, please feel free to contact me any time.

Thank you.

Very truly yours,



Spencer R. Knapp, Esq.
Sr. VP and General Counsel

THE
University of Vermont
MEDICAL CENTER

By Courier & Email *Office of the General Counsel*

January 3, 2017

Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
89 Main Street, Third Floor, City Center
Montpelier, VT 05620

Re: Letter of Intent for an Electronic Health Record Replacement Project

Dear Donna:

In accordance with 18 V.S.A. § 9440b and the Certificate of Need Program Rule 4.000 ("Rule 4"), the University of Vermont Medical Center ("UVM Medical Center") is filing this Letter of Intent and the enclosed Certificate of Need application, seeking expedited approval, with such abbreviated process as the Green Mountain Care Board ("GMCB") determines is appropriate, of a project to replace the current electronic health records and information technology systems at UVM Medical Center and three other UVM Health Network hospitals with a unified electronic health record system (the "Project").

With its adoption of 18 V.S.A. § 9440b, the Vermont legislature amended the CON law to authorize the GMCB to "establish by rule standards and expedited procedures for reviewing applications for the purchase or lease of health care information technology that otherwise would be subject to review," with such applications being granted if they are consistent with the Health Information Technology Plan and the Health Resources Allocation Plan. Consistent with its statutory authority and in recognition of the need to expand the use of integrated health information technology for improved patient care, the GMCB then adopted § 4.304(1)(b) of Rule 4, which permits expedited review for all CON applications for health information technology, regardless of cost.

This application requests the approval of a Project to establish a unified electronic health records system ("EHR") across the four UVM Health Network hospitals that are in closest proximity to one another: UVM Medical Center, Central Vermont Medical Center, Champlain Valley Physicians Hospital and Elizabethtown Community Hospital. The Project, if approved, would replace a patchwork of disparate and obsolete EHR systems that do not adequately communicate with each other and do not meet today's requirements for data needs and outcomes measurement. As described in the CON application, the Project satisfies all applicable requirements of the statewide Health Information Technology Plan and the Health Resources Allocation Plan. Most importantly, the Project will satisfy the needs of our patients for more timely and better coordinated care, as their clinical information will be readily accessible to UVM Health Network providers when they transition their care across different UVM Health Network settings. This will not only enhance communication and collaboration between patients and their UVM Health Network providers, but it will also improve our ability to transmit aggregated data to the Vermont Health Information Exchange, which is a fundamental goal of the Health Information Technology Plan.

Under Rule 4 and 18 V.S.A. § 9440b, we believe that this application meets all requirements for expedited review and that the GMCB may grant a Certification of Need upon a finding that it is consistent

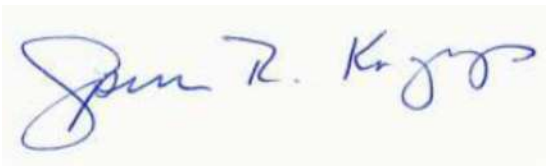
with the Health Resources Allocation Plan and the Health Information Technology Plan, and we respectfully request that the GMCB do so.

In accordance with 18 V.S.A. § 9440(c)(2) and the underlying CON regulations and guidelines, we provide the following information concerning the Project, which is amplified in the enclosed application:

Project Scope:	The Project involves expanding UVM Medical Center's license of its Epic electronic health records system to serve as the unified EHR across the UVM Health Network hospitals. The Project's total capital cost is $112.4 million. Although only capital expenditures are subject to CON review in HIT projects, the Project also entails net operating expenses of $42.4 million over a six-year implementation period.
Project Rationale:	UVM Health Network's existing EHR systems, including revenue cycle and scheduling systems, are obsolete and require replacement in order to meet today's standards for clinical care, scheduling, and population health management.
Need to be Addressed:	The Project will provide greater coordination of care for patients and improved access to medical information for patient's clinicians. It will also improve UVM Health Network's ability to transmit information to the Vermont and New York health information exchanges.
Cost, Access, Quality:	The Project will provide continued patient access and improve the quality of our services without any significant increase in our costs or charges.
Location:	UVM Medical Center, as the academic medical center hub of UVM Health Network and licensee of the Epic EHR, will host the unified EHR and sub-licensee it to the other UVM Health Network hospitals.
Service Area:	Vermont and the New York counties of Essex, Warren, Washington, Clinton, Franklin and St. Lawrence, with a combined population of approximately one million persons.
Projected Expenditures:	Capital expenditures of $112.4 million, and net operating expenses of $42.4 million.

We look forward to working with you and your staff during the review process for this application.

Very truly yours,



Spencer R. Knapp, Esq.
Sr. VP and General Counsel

STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD

In re:	The University of Vermont Medical Center Inc.	)
	Application for Certificate of Need to Replace	)
	Electronic Health Record Systems	)
	Capital Expenditure: $112.4 million	)

JOHN R. BRUMSTED, M.D., being duly sworn, states on oath as follows:

1. My name is John R. Brumsted, M.D. I am the Chief Executive Officer of The University of Vermont Medical Center Inc. and President and Chief Executive Officer of The University of Vermont Health Network Inc. I have reviewed the foregoing Certificate of Need Application.

2. Based on my personal knowledge, after diligent inquiry, the information contained in the Application is true, accurate and complete, does not contain any untrue statement of a material fact, and does not omit to state a material fact necessary to make the statement made therein not misleading, except as specifically noted herein.

3. My personal knowledge of the truth, accuracy and completeness of the information contained in the Application is based upon either my actual knowledge of the subject information or, where identified below, upon information reasonably believed by me to be reliable and provided to me by the individuals identified below who have certified that the information they have provided is true, accurate and complete, does not contain any untrue statement of a material fact, and does not omit to state a material fact necessary to make the statement made therein not misleading.

4. I have evaluated, within the 12 months preceding the date of this affidavit, the policies and procedures by which information has been provided by the certifying individuals identified below, and I have determined that such policies and procedures are effective in ensuring that all information submitted or used by The University of Vermont Medical Center Inc. in connection with the Certificate of Need program is true, accurate, and complete. I have disclosed to the Board of Trustees all significant deficiencies, of which I have personal knowledge after diligent inquiry, in such policies and procedures, and I have disclosed to the Board of Trustees any misrepresentation of facts, whether or not material, that involves management or any other employee participating in providing information submitted or used by The University of Vermont Medical Center Inc. in connection with the Certificate of Need program.

5. The following certifying individuals have provided information or documents to me in connection with the Application, and each such individual has certified, based on his or

her actual knowledge of the subject information or, where specifically identified in such certification, based on information reasonable believed by the certifying individual to be reliable, that the information or documents they have provided are true, accurate and complete, do not contain any untrue statement of a material fact, and do not omit to state a material fact necessary to make the statement made therein not misleading:

(a) Adam Buckley, MD, Chief Information Officer, UVM Health Network. This individual certified to the accuracy of the description of the Project and the existing electronic health record systems ("EHR") at the applicable UVM Health Network hospitals as described in the Application, including all information regarding the implementation plan for the unified EHR across the participating UVM Health Network hospitals, the costs associated with the Project, and the clinical and operational need for the Project.

(b) Marc Stanislas, Director, Finance, UVM Health Network. This individual certified to the accuracy of all financial information submitted with the Application, including the Financial Tables and the underlying financial assumptions associated with the financial feasibility analysis.

6. In the event that the information contained in the Application becomes untrue, inaccurate or incomplete in any material respect, I acknowledge my obligation to notify the Green Mountain Care Board, and to supplement the Application, as soon as I know, or reasonably should know, that the information or document has become untrue, inaccurate or incomplete in any material respect.

JOHN R. BRUMSTED, M.D.

On January 2 2017, JOHN R. BRUMSTED, M.D. appeared before me and swore to the truth, accuracy and completeness of the foregoing.

Notary Public
My commission expires 2/10/2019

HELEN CABOT McCARTHY
NOTARY PUBLIC
State of Vermont
My Comm. Expires Feb. 10, 2019

STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD

CERTIFICATE OF NEED APPLICATION
by
THE UNIVERSITY OF VERMONT MEDICAL CENTER
for
AN ELECTRONIC HEALTH RECORD REPLACEMENT PROJECT

Dated January 3, 2017

TABLE OF CONTENTS

CERTIFICATE OF NEED APPLICATION
by
THE UNIVERSITY OF VERMONT MEDICAL CENTER
for
AN ELECTRONIC HEALTH RECORD REPLACEMENT PROJECT

SECTION I
DESCRIPTION OF THE PROJECT

A. OVERVIEW

The University of Vermont Medical Center ("UVM Medical Center") (the "Applicant"), the academic medical center hub of the University of Vermont Health Network ("UVM Health Network" or the "Network"), submits this Certificate of Need Application (the "Application") to the Green Mountain Care Board ("GMCB") in accordance with 18 V.S.A. Section 9434(b)(1). The Application requests a Certificate of Need ("CON") approving a project to replace the current electronic health records and related information technology systems ("EHRs") at the UVM Medical Center and three of the UVM Health Network's other member hospitals with a unified EHR system (the "Project") to be purchased from Epic Systems Corporation ("Epic Systems").

The unified EHR will integrate health, clinical, registration, billing, scheduling, the patient portal and insurance information into one system that will improve patients' experience of care while giving them, their families and their providers access to consistent, timely and accurate information regardless of where in the Network care is delivered. The Project is essential to provide the UVM Health Network with the IT tools it needs to carry out its leading role in health reform initiatives.

The capital costs associated with the Project and subject to CON review under 18 V.S.A. § 9434(b)(1) are $112.4 million, including $3.1 million in capitalized interest.

In planning for this project the UVM Health Network has developed a "Total Cost of Ownership" ("TCO") analysis. The TCO includes both the capital costs and operating expenses associated with the Project over a period of time that extends beyond the actual implementation period. The TCO for the Project over a six-year period is $151.6 million.[1] The TCO informed the UVM Health Network's analyses of the financial impact and feasibility of the Project, as detailed later in the Application, so as to ensure a complete understanding of its costs to our organizations.

[1] As explained in more detail in Section E, "Project Finances," TCOs include only cash costs of projects. Non-cash costs, like capitalized interest and depreciation, are not included.

The capital expenditures of $112.4 million will be made by the UVM Medical Center, which will own the Project's capital assets. The associated net operating expenses identified in the Project's six-year TCO are $42.4 million. Those operating expenses, apart from depreciation, are to be allocated proportionately to participating Network hospitals annually based on patient volumes. As the owner of the Project's capital assets, the UVM Medical Center will account for all of the Project's depreciation expenses.

Because the Project involves the purchase of health information technology ("HIT"), pursuant to 18 V.S.A. § 9440b the Applicant is seeking expedited review of the application.[2]

1. Project Description and Objectives

The objective of this Project is to improve both patient care as well as the care experience by replacing the existing disparate and outdated HIT systems at four of the five member hospitals of the UVM Health Network with a single-platform, unified EHR system from Epic Systems, the nation's leading vendor and the same company that provided the UVM Medical Center with its clinical information system in 2008.[3] If the Project is approved, the UVM Medical Center's other systems would be replaced with the Epic platform and the unified Epic-based EHR platform would be extended from the UVM Medical Center, as the licensee, to three of the Network's other hospital affiliates.

The UVM Health Network currently comprises five member hospitals: UVM Medical Center and CVMC in Vermont, and Champlain Valley Physicians Hospital ("CVPH"), Elizabethtown Community Hospital ("ECH"), and Alice Hyde Medical Center ("Alice Hyde") in New York. Alice Hyde is not included in the Project, as it was not a member of the UVM Health Network during the extensive planning process that led to its development. We believe Epic can be implemented at Alice Hyde in the future, following completion of this Project, without substantial incremental capital expenditures. For purposes of this Application, subsequent references to the UVM Health Network mean the four hospitals impacted by the Project.

Each UVM Health Network hospital currently has many different systems to care for patients. For example, CVMC has different systems for inpatient care, Emergency Department ("ED")

---

[2] It has also been determined that a separate conceptual CON review of HIT applications is not required. *See* Statement of Decision, *In re Fletcher Allen Health Care, Purchase and Installation of Electronic Health Record System*, Docket No. 07-069-H (March 2008).

[3] The Epic EHR implementation at UVM Medical Center was authorized by a CON issued in April 2008, approving a total capital expenditure of $57.2 million plus $31.9 million in net operating costs over a three-year implementation period and the first two years of operation (s*ee In re Fletcher Allen Health Care, Purchase and Installation of Electronic Health Record System*, Docket No. 07-069-H). Following issuance of the CON, the Epic clinical system was completed within the implementation schedule without disruption in patient care or operations and at a cost significantly less ($4.2 million) than the CON-approved budget. The system has functioned as intended ever since.

care, and operating room care. Similarly, the UVM Medical Center has different systems for lab testing, radiology imaging, operating rooms, billing and scheduling. Two of the core systems at both are more than twenty years old and need to be replaced, as do other systems for a variety of reasons. Some of these systems are no longer supported by their vendors, or are not fully compliant with federal requirements. Because of these deficiencies, the existing systems do not guarantee that all necessary information is available when and where it is needed, and communication between them can be inconsistent and untimely, which can disrupt or adversely impact patient care. It also creates difficulties for patients trying to navigate the care delivery system. The disparate systems also make it difficult for the UVM Health Network to measure outcomes effectively or standardize care across the Network, which is necessary to improve the overall health of the populations we serve and slow the growth of health care costs.

Continued investment in these existing systems would be both expensive and wasteful, costing up to $200 million. Instead, the UVM Health Network seeks to replace the existing EHRs with a single-platform unified EHR from Epic.

The benefits of a unified EHR across the UVM Health Network are many and reflect the "Triple Aim" of improving the patient's experience of care, improving the health of populations, and reducing health care costs:

- Patients and their families will have accurate, timely and up-to-date information available 24/7.
- One patient portal (MyHealth Online) across the Network will allow patients and family members to access health, billing, scheduling and insurance information at their fingertips.
- Patients will be able to schedule appointments online, check lab tests and results, and communicate more easily with their providers.
- Patients and their families will not have to worry about – or be responsible for – making sure that different providers or facilities have the most current information available to them when they seek care; instead, all providers will have access to the same information, regardless of where within the Network the service is being delivered.
- The unified EHR will enhance communication and collaboration between UVM Health Network providers and community providers (those not employed by one of our hospitals).
- Ultimately, such a system will improve our ability to coordinate patients' care both locally and across our service area.
- A unified EHR will also enhance information security and patient privacy by reducing the risks inherent in multiple IT systems and enhancing our audit capabilities.

2. Project Costs

The Project's capital expenditures are $112.4 million, including $3.1 million of capitalized interest.

However, as noted earlier, in planning for the successful implementation of an HIT project of this size and scope, understanding the full impact on the organization is key. A TCO analysis,

which is considered best practice in planning for major HIT projects, is the preferred methodology for computing the costs of implementing EHRs, since a TCO will capture not only the purchase price of the software and hardware involved, but the costs of installing, training, deploying, operating, upgrading, and maintaining the same assets over a defined period of time.[4]

With the assistance of Cumberland Consulting Group ("Cumberland Consulting"), a national HIT implementation and support services firm, and Epic Systems, the UVM Health Network has developed a detailed analysis of the Project's cash costs and determined that the TCO for this Project is $151.6 million over a six-year period, including capital expenditures of $109.3 million[5] and operating expenses of $42.4 million. (For purposes of this Project, the TCO includes pre-implementation expenses in FY 2017, capital and operating expenses from FY 2018 through FY 2021 while the Project is being implemented, and operating expenses through FY 2022.)

The capital costs in the TCO include hardware and software costs, licensing fees, internal and external staffing costs, and other associated costs. The net operating expenses include similar expenses, and also take into account anticipated expense offsets, primarily related to offsets for legacy systems that will be replaced by Epic products and associated staff changes. All of these costs will be discussed in detail in Section E ("Project Finances"), below.

Cumberland Consulting has provided its opinion as an expert in this field that the TCO is accurate and complete and includes all of the cash expenses associated with this Project (*see* Exhibit A).

While the costs of the Project are substantial, the UVM Health Network estimates that updating, maintaining and replacing the existing systems across the UVM Health Network over a similar period of time could cost up to $200 million, without any of the benefits to our patients and providers of moving to a unified EHR. On that basis, we have concluded that any alternative to this Project for replacing existing systems would be more costly, wasteful and imprudent.

As discussed in Section E ("Project Finances"), in light of the many changes in health care funding that are on the horizon, the UVM Health Network's leadership has taken active steps to reduce overall capital spending and rigorously prioritize capital investments. Because of its system-wide scope and its beneficial impact on patients and providers – and because it will ultimately support the Network's ability to manage the health of the populations it serves – the Project has been given precedence over other potential capital intensive investments.

---

[4] UVM Medical Center similarly developed a TCO for the 2008 CON application seeking approval for implementation of its EHR system (s*ee* Fletcher Allen Health Care, Purchase and Installation of Electronic Health Record System, Docket No. 07-069-H). That TCO showed a total project cost of $89.1 million, including capital expenditures of $57.2 million plus $31.9 million in net operating costs over a three-year implementation period and the first two years of operation.

[5] As noted earlier, TCOs do not include non-cash costs, like capitalized interest. Thus, this figure does not include the $3.1 million in capitalized costs that are included in this application for purposes of the CON review.

The UVM Health Network has also made significant changes to its financial plans in order to offset the substantial costs of this Project, especially the depreciation costs that will be expensed over only five years. These changes include approximately $104 million in annual budget adjustments that will be implemented over the next six years. These adjustments will have the effect of maintaining the operating margins of the UVM Medical Center and the UVM Health Network within the benchmarks for A-rated health systems. These budget adjustments and the related financial forecasts are explained in greater detail in Section E, below.

3. Financial Feasibility

Successful implementation of the Project will not require any borrowing or any rate increases linked to the Project. This is because the Project expenditures are included in the UVM Health Network's five-year capital plan (FY 2016 – FY 2020) and our long-term financial framework. These were developed as a model for managing our spending, both capital and operating, over a period of years while maintaining our A bond rating within the budget parameters established by the GMCB. As indicated above, the UVM Health Network will also implement approximately $104 million of adjustments in its financial framework to offset the substantial costs of the Project, and these have been incorporated in the financial framework for both the UVM Medical Center and the UVM Health Network (s*ee* Section E, below). With these adjustments, we are confident that the Project can be undertaken without jeopardizing the Network's bond rating or requiring substantial increases in revenue.

Ponder & Co., the UVM Health Network's independent financial adviser, has been engaged to review the projected financial impact of the Project, as reflected in a 10-year financial forecast for both the UVM Health Network and the UVM Medical Center, and to provide its independent opinion as to the Project's financial feasibility. The Ponder opinion letter will be filed upon receipt.

Section E provides a more detailed discussion of the Project's finances and feasibility, including discussion of the Network's strategic decisions to prioritize capital spending choices.

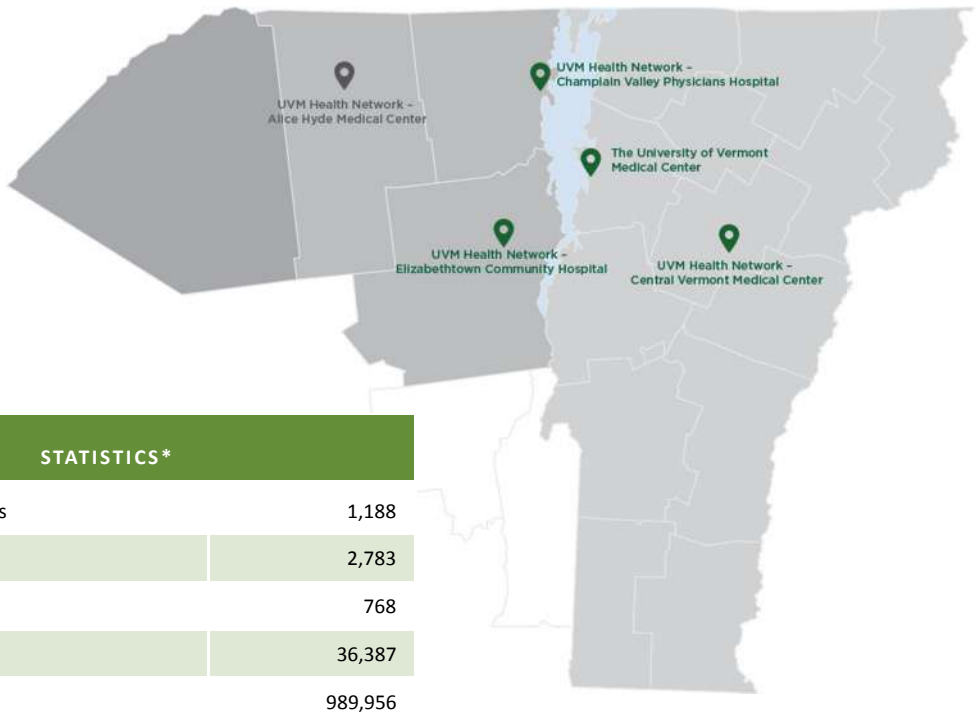
4. Timetable

The Project's 40-month implementation schedule has been developed to maximize staffing efficiencies while minimizing costs, especially the use of external consultants, as is discussed in more detail in Section D ("Project Description").

B. PROJECT NEED AND RATIONALE

As noted above, the EHRs of four of the UVM Health Network's member hospitals are the focus of the Project. These organizations provide a broad range of services in numerous settings across Vermont and northern New York:

- The Applicant, the UVM Medical Center, based in Burlington, Vermont, is the primary teaching hospital for the Larner College of Medicine and the College of Nursing and Health Sciences at the University of Vermont. Together, these institutions comprise Vermont's only academic medical center. It employs approximately 650 physicians, who also teach and conduct research at the College of Medicine, and has a total medical staff of approximately 800 providers. In addition to its 495 staffed inpatient beds, the UVM Medical Center operates eleven primary care practices in Chittenden County, five outpatient renal dialysis units in Vermont, and over 30 patient care sites and 100 outreach clinics, programs and services throughout Vermont and northern New York. It serves approximately one million residents in Vermont and northern New York.
- CVMC, based in Berlin, Vermont, is the primary health care provider for 66,000 people who live and work in central Vermont. CVMC staffs 78 inpatient beds, and provides 24-hour emergency care, a full spectrum of inpatient services, and outpatient services. Its professional staff includes over 121 physicians and more than 60 associate providers. In addition to care provided at the hospital, CVMC also operates 23 community-based medical group clinics and local physician practices in Washington County. CVMC's skilled nursing facility, Woodridge Rehabilitation and Nursing, offers a full range of nursing and rehabilitation services, including physical therapy, occupational therapy and speech therapy.
- CVPH, located in Plattsburgh, New York, provides acute care at its hospital (215 staffed beds) with a medical staff of about 170 physicians. CVPH offers a full spectrum of health care services to the rural communities it serve including the FitzPatrick Cancer Center, a Joint Care Center and a Progressive Women & Children's Center, two primary care clinics, more than 20 patient care sites and 10 outreach clinics, programs and services throughout northern New York, a 54-bed skilled nursing facility, residency programs in family medicine, pharmacy, and nursing, and a School of Radiologic Technology.
- ECH, located in Elizabethtown, New York, is a 23 staffed bed critical access hospital with a medical staff of more than 70 physicians. Its services include primary care, specialty care, physical and occupational therapy, radiology, chemotherapy, cardiac rehabilitation, and emergency care.



STATISTICS*	
Number of physicians	1,188
Number of RNs	2,783
Staffed beds	768
Inpatient discharges	36,387
Physician visits	989,956
Emergency Department visits	139,622
OR cases	26,124
Lab visits	4,093,148

* These figures do not include The UVM Health Network – Alice Hyde Medical Center because it was not a part of the UVM Health Network when the planning process for this project took place.

These organizations and providers currently use a hodgepodge of clinical, billing, and ancillary systems, including four different inpatient systems (used in the acute-care setting), five different ambulatory systems (physician offices and outpatient clinics), five different RCM systems (used for patient registration, scheduling, insurance and billing), and a number of other ancillary systems for labs, operating rooms, EDs, cardiology and radiology departments. The table below summarizes the systems currently in use at each organization:

Organization	Inpatient Clinical System	Inpatient Financial System	Ambulatory Clinical System	Ambulatory Financial System	Clinical Ancillary Systems
UVM Medical Center	Epic	GE	Epic	GE	Optum (OR) Sunquest (lab) GE (imaging) Merge (cardiology)
CVMC	Meditech	Meditech	eClinical Works	eClinical Works	Picis (ED) Philips (imaging) Merge (cardiology)
CVPH	Soarian	Soarian	GE Medent Paper	Soarian Medent None	ORSOS (OR) Sunquest (lab) Siemens (imaging) McKesson (cardiology)
ECH	CPSI	CPSI	GE	GE	CPSI

The age and usefulness of these separate systems varies greatly. CVMC's current inpatient system, Meditech, will require a significant investment in the near future to move from their legacy platform (Magic) to either their 6.15 platform, or implement an EHR with another vendor to eliminate the patchwork of current EHRs across its clinical locations. While the UVM Medical Center's current RCM application (a GE Healthcare product) is still functional, from a

clinical standpoint it has reached the end of its useful life, as it does not communicate seamlessly or reliably with the existing Epic system. Similarly, CVPH uses Soarian for its inpatient clinical and RCM systems. Originally developed by Siemens, Soarian was acquired by Cerner Corporation ("Cerner") in the summer of 2014. Cerner, which offers a competing platform, has informed CVPH that it will support Soarian until 2024, at which time the hospital will either need to have moved to Cerner's platform or lose any ongoing support for Soarian. Additionally, some of CVPH's providers still use paper records.

We could replace and maintain this patchwork of systems for the foreseeable future, but after consideration that option was rejected for a number of reasons:

- The current hodgepodge of systems is burdensome for both our patients and the providers who care for them. Patients have limited access to their clinical information and little or no ability to schedule appointments or interact with their providers easily and smoothly. Providers, for their part, can find themselves without the information they need at their fingertips to ensure that they are helping their patients to make the best and most timely care decisions. They also have to work on multiple platforms, which takes significant time away from caring for their patients.
- It is both expensive and wasteful to manage, update and maintain so many different systems. We estimate that it would cost up to $200 million in the coming years to upgrade and replace the current systems on an as-needed basis. Some of those costs – such as the hundreds of interfaces now needed so that the systems can "talk" to each other – can be avoided by moving to a unified EHR.
- It is unsustainable to manage so many systems, some of which are outdated or archaic, others of which are no longer being updated. Every update to one of the systems impacts the others with which it must interact, which in turn presents a risk of failed communications or a lack of timely information.
- As EHRs have continued to mature, it is becoming the industry standard for academic medical centers and health care systems with multiple facilities and service sites to use a unified EHR. Examples include the Mayo Clinic, Yale New Haven Health System, MaineHealth and Partners Healthcare.
- Changing regulatory standards are increasingly incentivizing hospitals and providers to invest in systems that will promote patient safety and support the data needs and outcomes measurement requirements of our evolving health care system. Failure to have the systems necessary to meet those requirements could bring unnecessary risks to our patients and to how our physicians and hospitals are reimbursed.

As we considered how best to proceed given the current needs of the UVM Health Network for replacements of or upgrades to existing systems, we concluded that implementing a unified EHR across the Network would both provide significant benefits to our patients and our providers while being the most prudent approach financially.

As noted earlier, unified EHRs are becoming the standard in health systems. As the most up-to-date and mature EHRs, they empower patients and their providers with better tools to manage their care. A unified EHR will enable each patient to have a comprehensive record that is shared across all providers and facilities in the UVM Health Network from whom they get care. It will also make it easier for patients because their registration, scheduling and billing information will

be completely integrated into the EHR, so there will be no need for multiple interactions with different providers to make sure they all have up-to-date and accurate information.

In addition to the many benefits outlined in Section A(1) ("Overview – Project Description and Objectives") above, this Project is also necessary if the UVM Health Network is to be successful in its commitment to moving away from fee-for-service medicine to population health management.

In Vermont, we have been active participants in existing value-based payment programs, including the three shared savings programs (Medicare, Medicaid and commercial payers) that have been in existence for several years. Our affiliated Accountable Care Organization ("ACO"), OneCare Vermont, has been chosen by CMS as one of the first "Next Generation" ACOs, with that program slated to begin in 2017. In addition, leaders from the UVM Health Network have been at the table helping to develop the framework for a statewide ACO that would support an "All-Payer Model" to effectively transform the way health care is delivered and paid for in the state.

The UVM Health Network has been engaged in similar population health activities in New York through its affiliate, the Adirondacks ACO, which is partnering with Adirondack Health Institute, a medical home project in northeastern New York that expects to be funded under New York's DSRIP (Delivery System Reform Incentive Payment) program in population health management initiatives with the objective of lowering costs and reducing avoidable hospital admissions.

Having a unified EHR will support our successful transition to population health management both in Vermont and New York by allowing us to use clinical data to monitor care trends and better coordinate care for at-risk populations using standardized practices across the Network.

The Project will also support the academic mission of the UVM Health Network by allowing researchers to integrate research recruitment into patient care, expanding recruitment to locations outside the UVM Medical Center, enhancing communication with study coordinators, and allowing researchers to more accurately follow their patients as they move through the health care system.

A unified EHR will also have a positive impact on non-Network hospitals, independent practices and community providers. The UVM Medical Center alone currently exchanges patient health information with these providers via the state's health information exchange (run by Vermont Information Technology Leaders, or "VITL"), a messaging service through Surescripts that allows the secure exchange of continuity of care documents, and directly through Epic's record sharing system called Care Everywhere. This record sharing includes direct EHR-to-EHR transmission of electronic information (with patient consent). To give a sense of scale, in the first ten months of calendar year 2016, the UVM Medical Center alone exchanged over 635,000 pieces of clinical information using these various methods across 49 states, more than 730

hospitals, 920 EDs, and 20,440 clinics. Having a record that now includes all of a patient's care across the UVM Health Network enhances the value of those connections.[6]

In addition to exchanging information electronically, many local and regional providers currently have access to the UVM Medical Center's Epic system through a function known as Epic Care Link. While this is not a "full version" of the EHR, this gives those providers access to some functions, like ordering tests and medications. There are currently more than 1,300 Care Link users, including providers of all types and organizations, ranging from skilled nursing facilities to private practices to dental offices. UVM Medical Center also offers "read only" access to providers who do not need any ordering capabilities; this function is used by about 600 providers. A unified EHR that contains information across the UVM Health Network will support better coordination across the care continuum, regardless of whether or not the provider or hospital is part of the Network.

In addition to serving as a platform for the UVM Health Network's establishment of a unified EHR, under the Epic Connect program described in more detail in Section III, CON Criterion 3, below, the Project can also be used to bring independent physician practices, hospitals, federally-qualified health centers and other providers onto the unified EHR through a license agreement. This would create even greater clinical efficiencies as these providers could be included in the UVM Health Network's shared medical records system (*i.e.*, one medical record for all patients). Some independent providers have already expressed interest in licensing the UVM Health Network's unified EHR, and this is something that we will explore further if this application is approved.

A unified EHR across the UVM Health Network will also enhance information security and patient privacy. Currently, we must maintain security and privacy standards for various systems that communicate through a variety of interfaces. Moving to a unified system will reduce the risks inherent in that kind of arrangement, while enhancing our auditing capabilities. We also have the confidence of knowing that we are partnering with a vendor that is compliant with all existing regulatory standards for security and privacy.

The alternative to this Project is to maintain, update and replace the many HIT systems being used by our hospitals and physician practices as needed, including major updates or replacements that are urgently needed at CVMC and our partner hospitals and practices in New York. We estimate the costs of this approach could cost up to $200 million over the same six-year period analyzed in planning for the Project. Not only are the costs above those for the Project as proposed, but our patients and providers would continue to experience the current challenges and inefficiencies of the existing hodgepodge of systems.

[6] *See* the "Interoperability Exchange Statistics" report produced by Epic for UVM Medical Center, attached as Exhibit B.

C. PLANNING PROCESS

The Project was planned over the course of approximately 18 months.

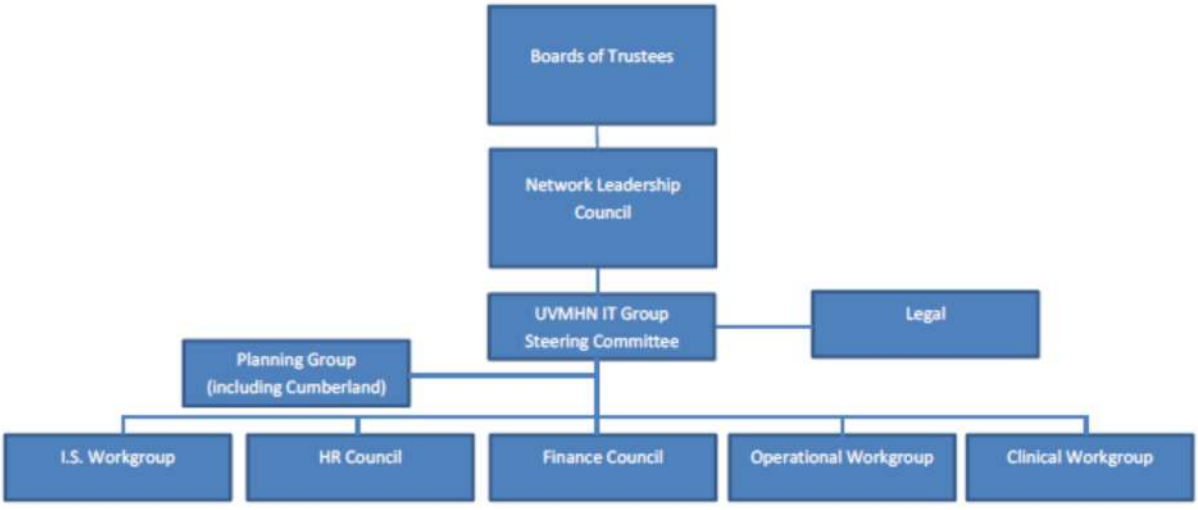
In 2014, as part of its regular review of organizational IT needs, the UVM Medical Center engaged Cumberland Consulting and Epic Systems to develop a plan for updating or replacing the UVM Medical Center's RCM and ancillary systems with an Epic system that would unify the Medical Center's EHR.

That work led to a decision in 2015 to explore the costs and benefits of extending Epic as a unified EHR across the Network. A steering committee was formed and charged with analyzing the costs and organizational and patient impacts of a Network EHR replacement project. Teams from different parts of the UVM Medical Center and the Health Network were involved in this process, including representatives from clinical, operations, finance, human resources, legal, compliance, and information services departments. The teams also included consultants from Cumberland Consulting.

Their work encompassed many elements, including reviewing the rationale for the Project and its strategic fit, assessing its impact on operations, human resources and facilities, the Project's financial feasibility, quality and success measures, and the development of an implementation timeline, key milestones, a risk assessment and alternatives, and risk mitigation strategies.

Once that work was completed, the Project was reviewed and approved by a series of groups, including executive leadership teams at each Network entity, their boards, the Network Leadership Council, and finally the UVM Health Network Board of Trustees.

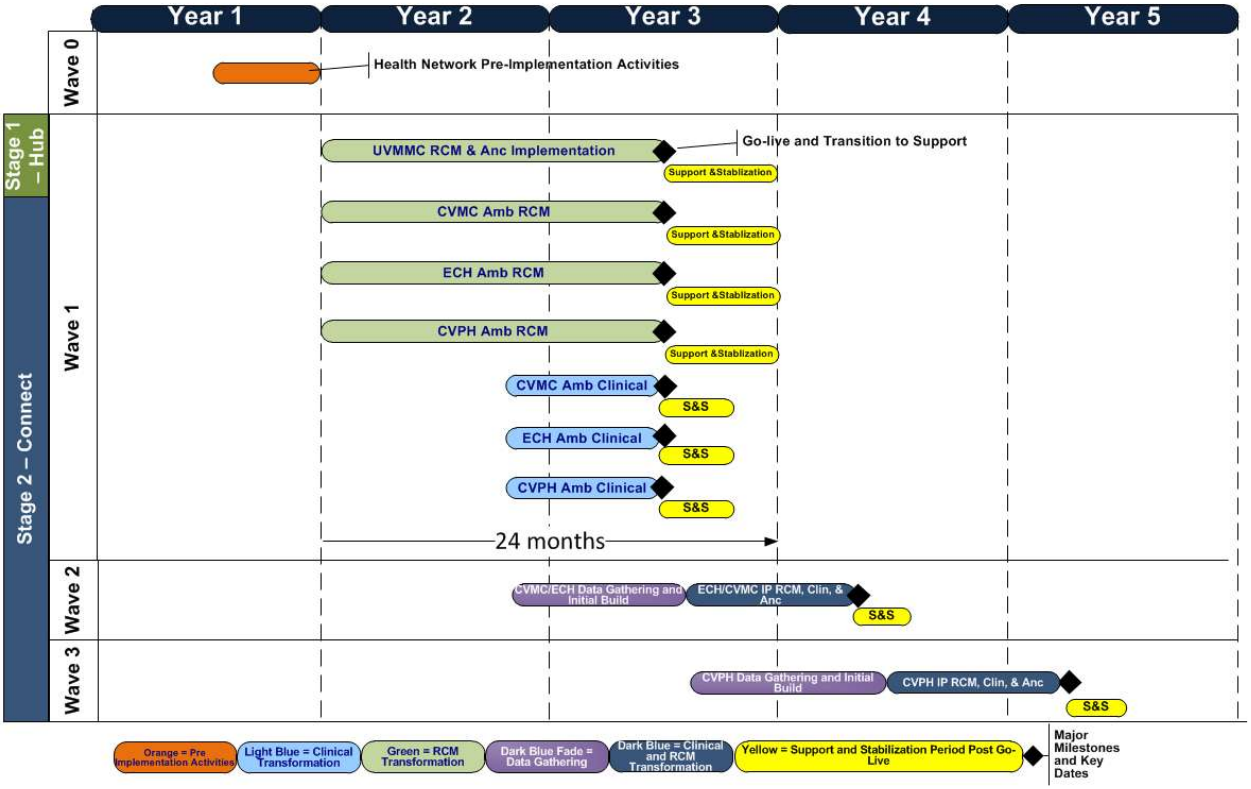
The following chart illustrates the groups involved in the planning process:



D. PROJECT DESCRIPTION

The Project proposes to convert all current inpatient and ambulatory records, clinical ancillary systems (lab, imaging, operating rooms, anesthesiology, etc.), and RCMs within the UVM Health Network to a unified EHR using Epic. It is important to note that the product we plan to implement is an off-the-shelf system that requires little customization, which simplifies the implementation and use of the new EHR while allowing us to manage the costs as tightly as possible.

In order to maximize efficiencies, keep costs down, and reduce risks, implementation of the Project will be staggered over 40 months to ensure staff have the time they need to train and begin use of the new system.[7] This staggered process also allows us to keep costs down as we deploy implementation teams to bring each system online essentially one at a time, reducing the number of external personnel needed, since internal staff will be trained on an ongoing process throughout the implementation period. The implementation phasing is illustrated below:



The Project will be overseen by the UVM Health Network Epic Connect Steering Committee, consisting of members of senior executive and clinical leadership within the Network. The Epic Connect Steering Committee, which will report progress to the Network Leadership Council

[7] The implementation timeframe – 40 months – should not be confused with the six-year TCO that was developed to give us a full picture of the Project's costs. As noted earlier, a TCO is used to ensure that we have a complete picture of all spending associated with the Project for a stated period of time.

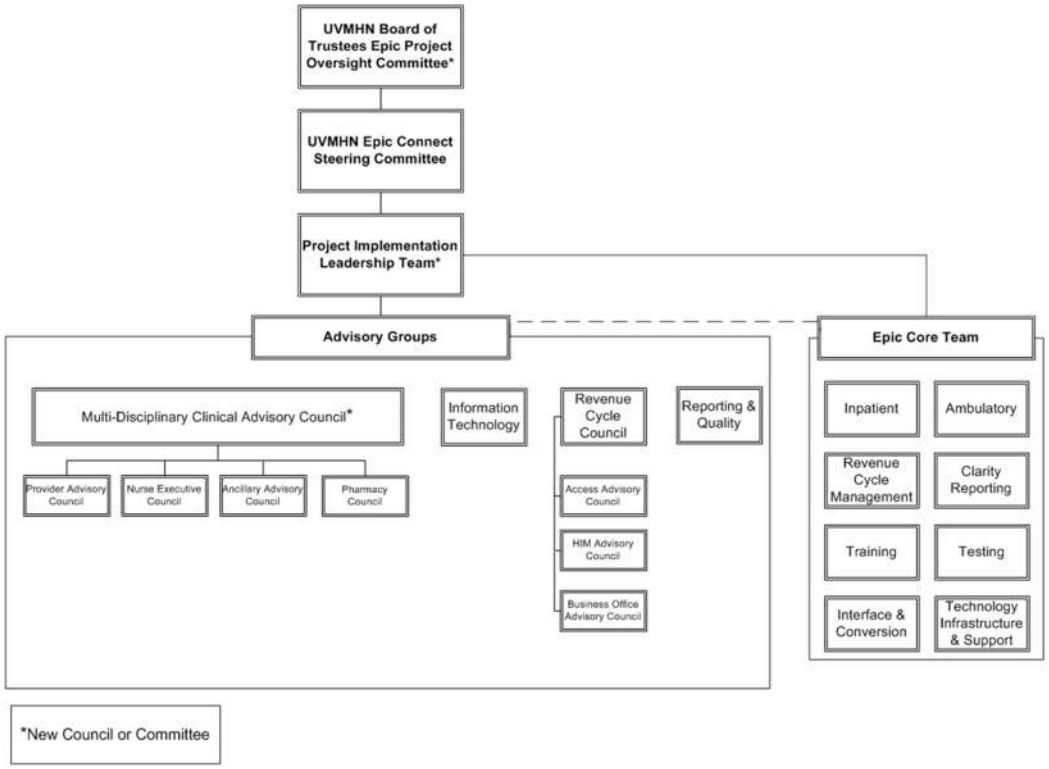
(comprising senior leaders from across the Network), will have ultimate authority and responsibility for the project and will address all major decisions related to the business plan (*e.g.*, scope, approach and risks).

The actual implementation of the Project will be the responsibility of a Project Implementation Team, whose members would typically include an overall project manager, as well as project managers for each IT functional area (clinical, testing, RCM, etc.). This team will be partnered with clinical and operational leaders, including chief medical officers, chief nursing officers, and chief information officers, from across the Network. In addition to its responsibilities to the Epic Connect Steering Committee, the Project Implementation Team will have advisory and reporting relationships with a number of entities as defined in the organization chart below. The team will report to these groups on a routine basis to ensure consistent two-way communication as the Project progresses. This governance process will commence immediately after the Project begins and will be in effect throughout the implementation period.

In addition, the UVM Health Network Board of Trustees will establish an *ad hoc* Project Oversight Committee to oversee the Project and report to the Board of Trustees.

Finally, we will report in writing on the Project's progress on a regular basis to the GMCB as required under any CON issued, and would be happy to update members and staff in person on a regular basis during regularly-scheduled GMCB meetings.

The chart below is a graphic illustration of the Project's governance organization. A scaled-down version of the same structure will be used after the implementation is complete in order to ensure successful submission, review and tracking of subsequent optimization projects.



In addition to the internal staff involved in the Project, the UVM Medical Center has chosen Cumberland Consulting to serve as its primary project manager. Their support services will include timeline tracking, deliverable maintenance, status updates and overall implementation project / budgeting support. Cumberland Consulting was chosen after a rigorous request for proposal ("RFP") process that was managed by The Advisory Board Company, a national health care consulting firm. Cumberland Consulting is considered a top performer by KLAS,[8] a source of client-based research on health care software vendors and services, and ranks high in overall advising as well as implementation services. It routinely assists in 6 – 9 Epic implementations a year.

We note that because some of the spending associated with the Project will occur in New York, the Project will be subject to CON review by the New York Department of Health.

E. PROJECT FINANCES

Regional Capital Planning

The UVM Health Network has a Network-wide business planning process to ensure that major capital investments are planned on a system-wide basis that takes into account regional needs, not simply the needs of individual hospitals or service areas. The process includes representatives from the Network members' operations, planning and finance teams.

Prioritization of Network Capital Spending

Consistent with our drive towards population health, greater affordability, and the expectation that revenues will continue to decrease over time, any capital investments we make must be tightly managed and prioritized. Over the past several years this process has led to an overall decrease in planned long-term capital spending for the UVM Health Network, from five-year projected capital spending of $773.2 million (FY 2015 budget) to $697.0 million (FY 2017 budget).

As the capital "envelope" is shrinking, we must prioritize which programs and projects are funded. Those decisions involve a broad array of individuals in our organizations, who balance competing capital needs. We believe our long-term capital plans are balanced between what we need to invest in patient care operations and the continuing investments necessary to support population health management.

TCO Analysis

As noted earlier, with the assistance of Cumberland Consulting and Epic Systems, the UVM Health Network has developed a detailed TCO analysis of the Project's cash costs and

[8] KLAS is an independent firm that uses independent feedback from HIT users to review health information technology software and services. It is considered by most in the field to be the leading organization for the evaluation of HIT products.

determined that the total net cost of ownership for this Project is $151.6 million over a six-year period, as outlined in the following table:

Cost Estimate	FY17	FY18	FY19	FY20	FY21	FY22	TOTAL
Epic Software Costs	$ -	$ 3,990,626	$ 4,297,367	$ 6,061,808	$ -	$ -	$ 14,349,800
Epic Implementation and Travel Costs	$ -	$ 7,608,174	$ 4,221,394	$ 2,351,950	$ 1,060,102	$ -	$ 15,241,619
Required 3rd Party Software	$ -	$ 2,592,546	$ -	$ -	$ -	$ -	$ 2,592,546
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 4,641,375	$ 3,800,834	$ 2,767,777	$ 590,655	$ -	$ 11,800,641
External Staffing	$ -	$ 11,456,900	$ 11,708,700	$ 10,229,375	$ 2,990,125	$ -	$ 36,385,100
Epic Related Technology Costs (Hardware,	$ -	$ 4,196,259	$ 3,925,000	$ 2,942,500	$ 83,333	$ -	$ 11,147,093
Network Related Technology Costs	$ -	$ 3,516,900	$ 836,756	$ 805,390	$ -	$ -	$ 5,159,047
Facilities, Communication and Travel	$ -	$ 1,073,055	$ 115,480	$ -	$ -	$ -	$ 1,188,535
Pre-Implementation - External Staffing	$ 1,458,180						$ 1,458,180
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Costs	**$ 1,458,180**	**$ 39,075,835**	**$ 28,905,530**	**$ 25,158,799**	**$ 4,724,216**	**$ -**	**$ 99,322,561**
Contingency 10%	$ 145,818	$ 3,907,584	$ 2,890,553	$ 2,515,880	$ 472,422	$ -	$ 9,932,256
Grand Total Capital Costs	**$ 1,603,998**	**$ 42,983,419**	**$ 31,796,083**	**$ 27,674,679**	**$ 5,196,637**	**$ -**	**$ 109,254,817**
Epic Software Costs	$ -	$ -	$ 685,098	$ 1,630,533	$ 2,662,005	$ 3,015,509	$ 7,993,145
Required 3rd Party Software	$ -	$ -	$ 348,007	$ 718,451	$ 741,673	$ 765,709	$ 2,573,839
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 924,502	$ 3,344,949	$ 5,800,043	$ 8,507,258	$ 7,719,765	$ 26,296,516
External Staffing	$ -	$ 377,700	$ 1,101,625	$ 818,350	$ 535,075	$ -	$ 2,832,750
Epic Related Technology Costs (Hardware,	$ -	$ 1,386,000	$ 1,454,000	$ 1,472,900	$ 1,492,745	$ 1,513,582	$ 7,319,227
Network Related Technology Costs	$ -	$ 5,652,060	$ 5,449,186	$ 4,976,629	$ 5,513,847	$ 5,770,810	$ 27,362,533
Facilities, Communication and Travel	$ -	$ 265,938	$ 667,704	$ 610,692	$ 564,358	$ -	$ 2,108,691
UVMHN Staffing Offsets	$ -	$ (2,943,311)	$ (3,146,513)	$ (5,653,331)	$ (8,349,263)	$ (9,986,680)	$ (30,079,099)
UVMHN Legacy System Offsets	$ -	$ -	$ -	$ (1,956,071)	$ (3,825,902)	$ (5,890,410)	$ (11,672,383)
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total OpEx	**$ -**	**$ 5,662,888**	**$ 9,904,056**	**$ 8,418,195**	**$ 7,841,795**	**$ 2,908,285**	**$ 34,735,219**
Contingency 10%	$ -	$ 860,619.91	$ 1,305,056.85	$ 1,602,759.72	$ 2,001,696.12	$ 1,878,537.50	$ 7,648,670.10
Grand Total OpEx	**$ -**	**$ 6,523,508**	**$ 11,209,112**	**$ 10,020,955**	**$ 9,843,491**	**$ 4,786,822**	**$ 42,383,889**
Total Project Cost	**$ 1,603,998**	**$ 49,506,927**	**$ 43,005,195**	**$ 37,695,634**	**$ 15,040,128**	**$ 4,786,822**	**$ 151,638,705**

The capital costs of the Project include the following:

- $14.3 million of Epic software costs. This includes one-time licensing fees for the Epic software.
- $15.2 million of Epic implementation and travel costs, including covers costs (fees and travel expenses) associated with Epic's implementation services, resource support with the implementation of new modules, data conversion into Epic, as well as assistance at initial go-live events.
- $2.6 million of required third-party software for the Caché operating environment (database license).
- $11.8 million for UVM Health Network internal staffing, including employees who will serve as project managers, team leads, and analysts for the Project. Only incremental staffing required by the project is included (*i.e.*, current PRISM resources at the UVM Medical Center are not included).
- $36.4 million for external staffing. That includes third-party employees who will serve as project managers, team leads, and analysts for the project. Costs estimates include their fees and expenses.
- $16.3 million of Epic and UVM Health Network-related technology costs. This includes network and infrastructure upgrades, new interfaces, reporting infrastructure upgrades and additional hardware required by the project.

- $1.2 million of facilities, training and communication, and travel. It includes leased space costs for housing IS staff and training sessions, costs associated with stakeholder engagement and MyChart design, and promotion to patients.
- $1.5 million of external staffing for pre-implementation work, including third-party employees who will serve as project managers and analysts during that phase.
- 10% contingency of $9.9 million.

The operating expenses in the TCO include the following:

- $8.0 million of Epic software costs, including the ongoing annual maintenance costs of Epic software.
- $2.6 million of required third-party software for the ongoing maintenance of the Caché operating environment.
- $26.3 million for UVM Health Network internal staffing, including costs for internal training resources during implementation and long-term staff to support the system. These expenses would be offset by $30.1 million in savings relating to employees no longer needed to support legacy systems.[9]
- $2.8 million for external staffing, including third-party employees who will design training materials and train end users.
- $34.7 million of Epic and UVM Health Network technology costs, including the long-term maintenance costs of the technology.
- $2.1 million of facilities, training and communications, and travel. It includes costs for sending UVM Health Network employees to Epic for training, training hours for clinical end users, and ongoing maintenance costs for training facilities.
- -($11.7 million) of offsets for legacy systems that will be replaced by Epic products.
- 10% contingency of $7.6 million.

The TCO analysis does not include the non-cash expenses of the Project: capitalized interest of $3.1 million and depreciation expenses during the implementation period of $95.2 million. (However, the capitalized interest is included in the total $112.4 million capital cost of the Project for purposes of the CON review.) Depreciation expenses will be accounted for by the UVM Medical Center as the asset owner. Both capitalized interest and depreciation were considered in the "Financial Feasibility" analysis of this Project, discussed below.

As noted earlier, Cumberland Consulting has provided its expert opinion that the TCO is accurate and complete and includes all of the cash expenses associated with this Project (s*ee* Exhibit A).

[9] For purposes of the TCO, we assumed that all UVM Health Network positions currently dedicated to legacy systems that are being replaced will be eliminated (approximately 85 positions across the Network). Over the same timeframe, 63 new positions will be created to support the new Epic systems. The overall loss of FTEs is estimated at 22 positions across the Network over the 40-month implementation period. We assume that most or all current employees would move into the new Epic-related positions, and that the remaining changes would be managed through normal attrition rates over the implementation period.

Allocation of Project Costs

As indicated in the Overview section of this Application, the Project's capital expenditures are to be paid by the Applicant, the UVM Medical Center, which will own the capital assets. The Project's operating expenses, apart from depreciation, are to be allocated proportionately to participating Network hospitals annually, with fees based on patient volumes (which is how Epic currently charges fees to the UVM Medical Center). As the owner of the Project's capital assets, the UVM Medical Center will account for all of the Project's depreciation expenses.

The table below summarizes the allocation of Project costs:

6-Year Summary of Epic Costs & Funds Flow

	Total University of Vermont Health Network (UVMHN)	University of Vermont Medical Center (UVMMC)	Central Vermont Medical Center (CVMC)	**NY** Champlain Valley Physicians Hospital (CVPH)	**NY** Elizabethtown Community Hospital (ECH)
Total Capital Costs[1]	$109,254,817	$109,254,817	$0	$0	$0
Total Operating Costs[2]	$84,135,371	$84,135,371	$0	$0	$0
Subscription Fees[3]	$0	($28,160,039)	$9,633,978	$16,817,371	$1,708,690
Total System & Staffing Offsets[4]	($41,751,484)	($27,199,872)	($4,370,523)	($9,293,353)	($887,736)
Total Net Capital & Operating Cost of Epic Implementation	**$151,638,704**	**$138,030,277**	**$5,263,455**	**$7,524,018**	**$820,954**

Footnotes:

1 UVMMC as the licensee has all the capital costs
2 UVMMC as the Epic licensee will be allocated all operating costs
3 The UVMHN hospitals reimburse UVMMC for their share of the operating costs
4 Staffing & system offset savings generated from Epic implementation

Project Alternatives

While the costs of the Project are substantial, after rigorous review and analysis, the Applicant has concluded that maintaining the current patchwork of IT systems is unacceptable and imprudent, and that the Project is the best approach to addressing the challenges it presents to our patients and providers.

- Patients will find it easier to navigate the health care system, because there will be fewer forms and provider questions.
- We will be able to provide a better, safer experience for our patients as they move through the network.
- Physicians and staff across the network will have easier access to patient records and clinical and business tools.
- It is expensive and wasteful to manage, update and maintain the existing systems. The UVM Health Network estimates that updating, maintaining and replacing the existing systems across the UVM Health Network over a similar period of time could cost up to

$200 million, without any of the benefits to our patients and providers of moving to a unified EHR.

- It is unsustainable to manage so many systems, some of which are outdated and others of which are no longer being supported, or at risk of not being supported into the future.
- It is no longer industry standard to use multiple health IT platforms across networks that include hospitals, physician offices, and clinics in many different locations.
- It is also becoming increasingly challenging to meet regulatory reporting standards, which we expect will continue to expand under programs like MACRA/MIPs (the Medicare Access & CHIP Reauthorization Act/Merit-based Incentive Payment System) or the proposed All-Payer Model.

For these reasons, we believe that any alternative to this Project for replacing existing systems would be more costly, wasteful and imprudent.

Project Financing and Assumptions

The Project will be funded internally with existing operating capital. Accordingly, successful implementation of the Project will not require any borrowing or any rate increases linked to Project.

However, to offset the substantial costs of this Project, especially the depreciation costs that will be expensed over only five years, the UVM Health Network will implement approximately $104 million in annual budget adjustments over the next six years ($75 million at the UVM Medical Center, $9 million at CVMC and $20 million at the Network's New York hospitals). Adjustments include substantial expense reductions, including reductions in the historical rate of FTE growth.

These adjustments, taken together, will have the effect of maintaining the operating margins of the UVM Medical Center and the UVM Health Network within the benchmarks for A-rated health systems, and are discussed further below.

Financial Feasibility

The proposed spending is included in the UVM Health Network's long-term financial framework. That model, reviewed and updated periodically by the UVM Health Network and our Board of Trustees, allows us to plan for needed capital investments over time within the financial parameters established by the Green Mountain Care Board, which focus on making health care more affordable, while providing us with tools to manage how and when capital spending occurs. The framework's premise is that the UVM Health Network should meet national financial benchmarks that support our current A rating on the bond market within the parameters established by the GMCB. Using those benchmarks, we can plan our revenue and spending profile over a period of several years to determine how much capital is available.

Our financial framework assumes an operating margin performance of 3.5% across the Network. Should we fail to meet that target, we will need to revisit the total capital for all projects in the five-year plan and either reduce it, reprioritize projects, or delay projects to make certain our operating performance can support the capital spending while maintaining A-rating performance standards.

Consistent with this approach, we have developed detailed financial projections for the years 2017 – 2025 to determine the financial impact of the Project on the UVM Health Network, incorporating the cash expenses included in the TCO, the other non-cash expenses associated with the Project, and the approximately $104 million in budget adjustments mentioned in the preceding section. The detailed projections for the UVM Health Network, the UVM Medical Center and CVMC are included in Exhibit C, together with a summary of the assumptions on which the forecasts are based. The following table summarizes the projections:

		Projection Years								
University of Vermont Health Network	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
(UVMHN = UVMMC + CVMC + CPI)										
Income Statement										
Net Patient Revenue	1,639,830	1,712,353	1,771,426	1,832,565	1,895,763	1,961,208	2,028,933	2,098,996	2,171,455	2,246,480
Annual Net Patient Revenue Growth		4.4%	3.4%	3.5%	3.4%	3.5%	3.5%	3.5%	3.5%	3.5%
Other Operating Revenue	161,179	122,858	131,645	140,588	144,690	148,960	153,407	158,039	162,863	167,888
Total Operating Revenue	1,801,009	1,835,211	1,903,071	1,973,153	2,040,453	2,110,168	2,182,340	2,257,035	2,334,318	2,414,368
Operating Expenses										
Salaries and Fringe Benefits	1,060,706	1,094,274	1,133,463	1,174,472	1,217,003	1,268,912	1,322,911	1,378,799	1,437,452	1,498,538
Depreciation & Amortization	83,134	83,634	104,069	115,584	128,129	129,794	137,446	142,233	137,111	126,110
Interest	23,117	19,153	23,092	22,200	21,231	20,216	19,342	19,191	18,326	17,667
All Other Expenses	563,457	587,561	597,745	605,512	605,093	616,575	625,081	636,950	661,074	686,499
Total Operating Expenses	1,730,414	1,784,622	1,858,369	1,917,768	1,971,456	2,035,498	2,104,780	2,177,173	2,253,963	2,328,814
Operating Income	**70,595**	**50,589**	**44,702**	**55,385**	**68,997**	**74,670**	**77,560**	**79,862**	**80,355**	**85,554**
Operating Margin	**3.9%**	**2.8%**	**2.3%**	**2.8%**	**3.4%**	**3.5%**	**3.6%**	**3.5%**	**3.4%**	**3.5%**
Net Nonoperating Revenue	6,258	17,555	22,972	22,526	24,353	27,315	30,497	34,006	37,576	41,099
Excess of Revenue over Expenses	76,853	68,144	67,674	77,911	93,350	101,985	108,057	113,868	117,931	126,653
Relevant Metrics & Stats										
FTEs - MD and Staff	10,773	10,989	11,054	11,121	11,189	11,304	11,419	11,534	11,652	11,771
Annual FTE Growth		2.0%	0.6%	0.6%	0.6%	1.0%	1.0%	1.0%	1.0%	1.0%
Operating Margin	3.9%	2.8%	2.3%	2.8%	3.4%	3.5%	3.6%	3.5%	3.4%	3.5%
Operating EBIDA Margin	9.8%	8.4%	9.0%	9.8%	10.7%	10.6%	10.7%	10.7%	10.1%	9.5%
Days Cash on Hand	156	170	159	159	175	189	205	220	233	244
Debt to Capitalization	33.1%	38.2%	36.2%	33.3%	30.5%	27.7%	25.0%	22.5%	20.2%	18.2%
Average Age of Plant	9.71	10.65	9.56	9.61	9.67	10.54	10.96	11.59	13.02	15.16

The projections shown in these tables demonstrate that both the UVM Medical Center and the UVM Health Network will be able to maintain operating margins within the benchmarks for A-rated health systems during the forecast period.

As noted earlier, Ponder & Co., the UVM Health Network's independent financial adviser, has been engaged to review these projections and to provide its independent opinion as to the Project's financial feasibility and its impact on the Network's bond rating.

We will evaluate the feasibility and affordability of deploying the unified Epic system to Alice Hyde and to new partners as they join the UVM Health Network. Our ability to move forward with any such expansion depends both on affordability and obtaining any necessary regulatory approvals.

Financial Safeguards

All major projects come with some level of risk, but the Applicant recognizes that the Project's size and scope are of such a large scale that risk management and mitigation have been necessary components of our planning process. While there are many examples of successful EHR implementation projects – including the Epic implementation undertaken by the UVM Medical Center almost ten years ago – other major projects have made the news because they were not so successful. Those problems appear to have been caused either by incomplete planning (often without the assistance of experienced consultants), or not using experienced teams to manage the

projects during implementation to make sure they stayed within their planned scope, or some combination of those factors.

Both the planning and the implementation processes for this Project have recognized those risks and included numerous tactics to mitigate or eliminate them. Those include:

- Using Cumberland Consulting, a nationally-recognized and experienced consulting firm, in developing a TCO so as to ensure a full understanding of the total costs of the Project for a period of time beyond just the implementation period. This includes adequate contingency funds. Both the capital and operating expenses in the TCO include 10% contingencies for unexpected changes.
- Using an RFP process to contract with an experienced project management company (Cumberland Consulting, again) to partner with the UVM Health Network in implementing the Project. Cumberland Consulting has substantial experience in managing successful large-scale Epic implementation projects.
- Developing an implementation process that will fully engage the providers who will be affected by the Project, and will ensure that all users receive the training they need to successfully manage the transition from one system to another. This includes backfilling staffing needs while internal staff are trained and begin using the new systems.
- Using a phased implementation schedule that allows regular assessments as to progress against anticipated costs. Detailed progress and financial information will also be included in the regular reports to the GMCB that will be required under a CON, and we anticipate updating the GMCB in person at regularly-scheduled GMCB meetings.
- Incorporating a sensitivity analysis into the financial feasibility assessment that modeled the impact of changes in underlying assumptions, including potential disruptions to revenues or expenses.
- Establishing a governance structure that will rigorously oversee and control the scope of the Project. "Project creep" is one of the most common reasons for budget overruns on HIT projects. The governance structure that will be put in place, described in detail in Section D ("Project Description"), is designed to make sure that the scope of the project remains within the planning parameters.

We believe that these safeguards will minimize the risks associated with implementing the Project within the timeframes and costs outlined in this Application.

SECTION II
CONSISTENCY WITH THE HRAP CON STANDARDS

The current version of the Health Resource Allocation Plan (HRAP) provides that in "order to have a higher functioning, more integrated care delivery system, health care providers must have greater and more streamlined access to data that *can only be provided through the expansion of integrated health information technology*."[10]

This Project's goal – the creation of a unified electronic health record system across the UVM Health Network – is in furtherance of the HRAP's recognition that expansion of *integrated* health information technology is needed for greater access to data and a higher functioning care delivery system. Indeed, the creation of a common medical record platform among the UVM Health Network hospitals will ensure that patients who receive their care from multiple UVM Health Network providers, often on an urgent basis, can move easily and smoothly across the system. A common medical record will also ensure that caregivers have the information they need at their fingertips to help patients make the best and most timely care decisions.

Unlike prior versions of the HRAP, the 2009 edition does not include a separate chapter on health information technology and does not include any HRAP CON Standards that are specifically applicable to HIT projects. Instead, the HRAP provides as follows:

> The 2005 HRAP contained an entire chapter on health information technology. We did not include a separate chapter on HIT in the 2009 HRAP. We made this decision for several reasons, most notably because the Vermont Health Information Technology Leaders (VITL) have done much work in this area and it was felt that the HRAP would simply be duplicative. However, it is important to recognize that virtually all health care reform measures, including those focused on quality improvement and those focused on cost containment, have a vital HIT component. Vermont's Health Information Technology Plan recognizes this and is a good resource for those interested in focusing more specifically on HIT.[11]

The project's compliance with Vermont's Health Information Technology Plan is a statutory criterion that is addressed below in Section III of the application. The only applicable HRAP CON Standard relates to whether the project's cost is included in the hospital budget submission to the Green Mountain Care Board. This HRAP standard is **bolded** below followed by an explanation as to how the Project is consistent with the standard.

---

[10] *State of Vermont Health Resource Allocation Plan*, July 1, 2009, p. 13 (emphasis added).

[11] *Id.* at p. 13.

CON STANDARD 3.4: Applicants subject to budget review shall demonstrate that a proposed project has been included in hospital budget submissions or explain why inclusion was not feasible.

The cost for this Project was included in the UVM Medical Center's capital budget submission for FY 2016, with an anticipated capital cost of $111M. In the UVM Medical Center's FY 2017 capital budget submission, the cost for the Project was updated to reflect the final capital cost after completion of the Total Cost of Ownership analysis ($108.8M).

SECTION III
CONSISTENCY WITH 18 V.S.A. § 9437

This Application demonstrates, and the GMCB should find, that the Project complies and is fully consistent with the statutory criteria set forth in 18 V.S.A. Section 9437.

The statutory language contained in Section 9437 is **bolded** below followed by the UVM Health Network's explanation of how the Project is consistent with each requirement.

1. The Application is consistent with the HRAP.

As indicated in Section II, the Project is consistent with the one applicable HRAP CON standard.

2. The cost of the project is reasonable, because:

A. the applicant's financial condition will sustain any financial burden likely to result from completion of the project;

The UVM Medical Center will be able to sustain the financial burdens of this Project and expects to complete the Project from available operating capital without additional borrowing.

Project expenses are included in the UVM Health Network's long-term financial framework. That model, reviewed and updated regularly by the UVM Health Network and our Board of Trustees, allows us to plan for needed capital investments over time within the financial parameters established by the Green Mountain Care Board while providing us with tools to manage how and when capital spending occurs. The framework's premise is that the UVM Health Network should meet national financial benchmarks that support our current A rating on the bond market within the parameters established by the GMCB. Using those benchmarks, we can plan our revenue and spending profile over a period of several years to determine how much capital is available.

Following this approach, the UVM Health Network developed detailed projections to determine the financial impact of the Project, incorporating the cash expenses included in the TCO and other non-cash expenses associated with the Project. These projections are summarized in the table on p. 19 of the application.

The projections reflect a decrease in net income for a three year period (2020-2022) primarily due to the substantial increase in non-cash depreciation during this period as result of the highly-accelerated depreciation schedule on IT assets. However, the UVM Medical Center's EBIDA (Earnings Before Interest, Depreciation and Amortization) margin and available cash remain strong throughout this period.

Ponder & Co., the UVM Health Network's independent financial adviser, reviewed these projections and based upon them, has concluded that the Project is financially feasible and within the Network's debt capacity without jeopardizing the Network's bond rating.

B. the project will not result in an undue increase in the costs of medical care. In making findings under this subdivision, the commissioner shall consider and weigh relevant factors, including:

i. the financial implications of the project on hospitals and other clinical settings, including the impact on their services, expenditures, and charges;

ii. whether the impact on services, expenditures, and charges is outweighed by the benefit of the project to the public; and

The Project will not result in any increase in the costs of medical care. The UVM Medical Center expects to fund the Project with available operating capital without additional borrowing or rate increases linked to the Project.

C. less expensive alternatives do not exist, would be unsatisfactory, or are not feasible or appropriate;

Reasonable alternatives to the Project are not appropriate or feasible. The only alternative would be to replace all of the existing systems that require replacement across the UVM Health Network, at a higher cost (potentially up to $200 million) and without the clinical efficiencies that are discussed throughout this application. That would not be feasible or appropriate, and would not create the necessary improvements to patient care that are discussed in response to CON Statutory Criterion 4, below. Furthermore, simply replacing existing systems across the Network that are in need of replacement would fail to achieve the integration mandated under the current HRAP CON standards.

3. There is an identifiable, existing, or reasonably anticipated need for the proposed project which is appropriate for the applicant to provide;

The *need* for this Project, as discussed above, is based on the fact that many of the UVM Health Network's existing clinical and administrative IT systems require replacement. CVMC's current inpatient system, Meditech, is no longer meeting its needs and will require a significant investment in the near future to move from their legacy platform (Magic) to either their 6.15 platform, or implement an EHR with another vendor to eliminate the patchwork of current EHRs across its clinical locations. The UVM Medical Center's revenue cycle system, a GE Healthcare product, is over 21 years old and needs to be replaced. CVPH uses three different outpatient

systems, paper medical records in some of its clinics, and its inpatient system, Soarian, was recently acquired by a competing electronic health record vendor, Cerner, raising questions about Soarian's long-term viability as a standalone system. None of these systems adequately communicates with each other, as described in more detail in response to CON Statutory Criterion 4 below.

To meet the needs of the UVM Health Network for up-to-date HIT systems, the current patchwork of systems could be maintained and updated, for a cost of up to $200 million, or the UVM Health Network could invest in a consolidated HIT system. Transitioning to a consolidated HIT system across the UVM Health Network can be accomplished at a lower cost and with the clinical efficiencies described throughout this application.

Once the UVM Health Network made the decision to follow the lead of its peers and transition to a single HIT system, it surveyed the marketplace to determine whether extending the UVM Medical Center's Epic system across the network would be the best option, or whether another vendor's system would be more advantageous. Epic was the clear winner.

Epic has a program called Connect that is specifically geared towards the creation of a consolidated HIT system among distinct health care providers. The program permits a health care provider that licenses Epic (the "host provider") to extend full access to its Epic system to other hospitals, clinics and affiliated providers. By extending Epic, the host provider (the UVM Medical Center, in our case) and partnering providers create a single health record for their patients, improving the patient experience and helping to promote collaboration, improve patient safety, reduce collective operational costs, improve analytics, and support seamless ambulatory and inpatient care across associated provider groups.

Epic supports the Connect program with extensive documentation, established training and support strategies, and forums that allow customers to exchange best practices. In addition to the creation of a consolidated infrastructure for an improved patient experience and more seamless patient care and referral management, by creating a unified EHR, the Connect program also creates opportunities for participating providers to achieve operational savings by sharing data centers, data storage (*i.e.*, physical flash arrays, servers, etc.), IT infrastructure, and disaster recovery systems.

Nearly 70% of Epic customers have adopted the Connect program to extend their Epic software to other hospitals and clinics. MidMichigan Health, which is part of the University of Michigan Health System, is one such example. MidMichigan Health decided to extend Epic across all of its hospitals, doctors' offices and outpatient care facilities for the creation of a single, integrated EHR as part of its One Person, One Record project. In announcing the initiative, MidMichigan Health's Chief Information Officer stated as follows:

> Our current state of multiple vendor systems requires us to maintain a large number of custom interfaces. This has simply

> become unsustainable, both in terms of the cost to maintain those systems and the potential risk and confusion that it introduces.[12]

Like MidMichigan, the UVM Health Network is currently struggling to maintain a large number of expensive interfaces to achieve some form of connectivity among its many different software systems. The UVM Medical Center alone has created dozens of different interfaces so that its software systems can "talk to each other" as necessary for coordinated care.

The large percentage of Epic customers that have decided to extend their Epic system through the Connect program is not surprising given Epic's industry-leading customer satisfaction scores and success implementing projects on budget. Epic has earned the number one ranking for its EHR software suite for six consecutive years in the "Best in KLAS" award.[13] In KLAS's most recent rankings for 2016, Epic's software received the highest overall ranking for customer satisfaction when compared to all other electronic medical records systems. The individual Epic modules that are part of Epic's software package (inpatient, outpatient and hospital billing) also had higher scores than competitors' products. Finally, KLAS concluded that more hospitals are licensing Epic than competing vendors' products, as hospitals migrate from other electronic medical records systems to Epic.

Epic's own data indicates that 87% of Epic implementation projects are completed on or under their budget, with the majority of Epic implementations using only 87% of their original implementation budget. Of the minority of projects that spent more than their implementation budget, none exceeded their budget by more than 25%. The most common reasons for organizations exceeding their implementation budget were an increase to project scope, a change to the project's implementation timeline, and project team staffing deficiencies.[14]

As discussed above, this Project is needed to replace existing HIT systems that have reached the end of their useful lifespans. The Project's establishment of a unified EHR will integrate clinical, registration, billing, scheduling, patient portal and insurance information into one system that will improve the patient experience of care while giving patients, their families and their providers access to consistent, timely and accurate information regardless of where their care is delivered. Given the UVM Medical Center's proven track record of completing an inpatient and ambulatory Epic implementation well within the CON-approved budget and implementation schedule, and Epic's place as an industry-leader with a well-established program for extending its software across multiple providers,[15] the Applicant believes that Epic is the right choice to serve as the vendor for the UVM Health Network's unified EHR system.

---

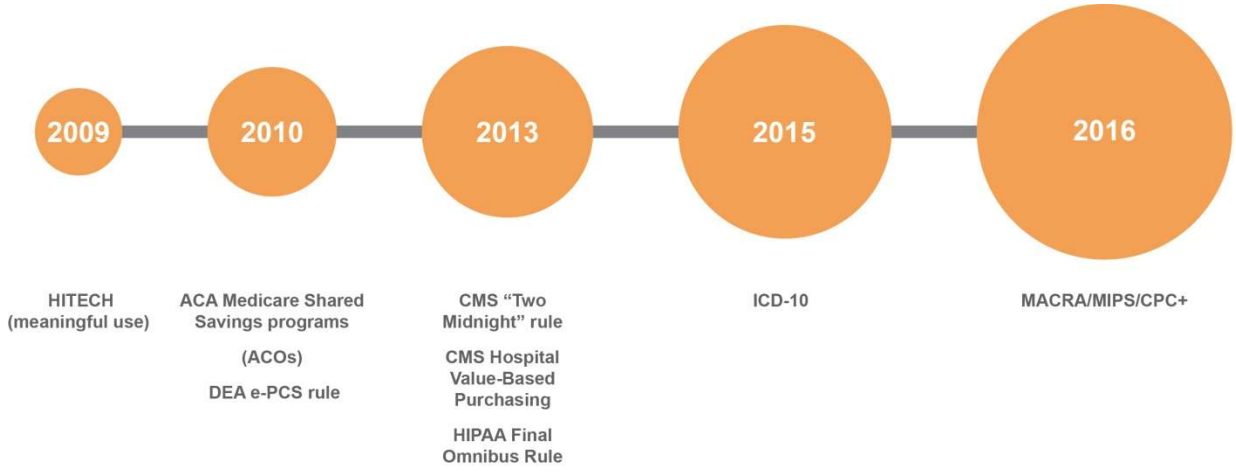
[12] More information is available at: http://hitconsultant.net/2016/01/28/midmichigan-health-epic-integrated-ehr/.

[13] KLAS's annual "Best in KLAS: Software & Services Report," where it ranks the leading vendors, is a well-respected source for information about the highest-performing medical software products. The annual KLAS report is the culmination of a year's worth of analyses by KLAS and interviews with thousands of health care providers.

[14] *See* "Staying On Budget – Epic's Track Record," Epic Systems Corporation (2016), attached as Exhibit D.

[15] In addition to serving as a platform for UVM Health Network's establishment of a unified EHR, the Epic Connect program can also be used to bring independent physician practices, hospitals, federally-qualified health centers and

Changing regulatory standards also support our need for the Project. Those standards took on new meaning in 2009 with the advent of the "meaningful use" program under the federal HITECH law, and continue to evolve at an ever-increasing pace (much as technology does). The newest program changes are coming as a result of MACRA, the law that replaced the old Sustainable Growth Rate with a newer, unified set of reports and measures that will drive how physicians get paid. A unified EHR across the UVM Health Network will support our ability to comply with these regulatory requirements.



The *need* for this Project is also demonstrated throughout this Application. It is specifically addressed in Sections I(A), I(B), and I(D), which are incorporated herein by reference.

4. The project will improve the quality of health care in the state or provide greater access to health care for Vermont's residents, or both;

The Project will improve the quality of health care in numerous ways, including providing greater coordination of care for patients and improved access to medical information for patients' clinicians. This will allow patients to move seamlessly across the UVM Health Network for better care transition management, thereby improving the experience of care and general patient satisfaction. Specific examples of quality improvements at individual UVM Health Network hospitals are described below.

Central Vermont Medical Center

- CVMC uses a variety of different systems that require extensive interfacing to communicate with each other, making it difficult for providers to gather all of the

other providers onto UVM Heath Network's unified EHR, at cost, through a license agreement. This would create even greater clinical efficiencies as independent practices would be part of UVM Health Network's shared medical records system (*i.e.*, one medical record for all patients.). Some independent providers have already expressed interest in licensing UVM Health Network's unified EHR and this is something that we will explore further if this application is approved.

necessary clinical information and making it burdensome for patients to access copies of their medical records. CVMC uses Meditech for its inpatient clinical system and inpatient financial system, eClinical Works for its ambulatory clinical system and ambulatory financial system, Point Click Care for its Nursing Home, Picis for its ED, Philips for its radiology images, and Merge for its cardiology images.

- Because CVMC has so many different clinical systems, providers often have to toggle and review records in 4 to 5 different systems to gather clinically-relevant information needed for patient care. This can lead to problems and difficulties in urgent, high-risk situations as well as in routine care. For example, when a trauma patient presents to CVMC's ED, a critical question caregivers face is determining whether the patient is on blood thinner medication. This is because even if the patient presents without outward signs of bleeding, a trauma injury to the head, for example, may result in internal bleeding. Patients who are on blood thinner medication are more susceptible to bleeding and would likely need a CT scan to rule out potentially life-threatening internal bleeding. Lacking an integrated electronic medical record means that, in urgent situations, CVMC's ED providers are searching through multiple EHR systems to gather the information they need. This would not be an issue with a single, unified EHR across the UVM Health Network.
- Because CVMC has different clinical systems for inpatient care and ambulatory care, CVMC has two different patient portals for patients to access when reviewing their medical information. This can lead to confusion and potential errors. For example, patients may experience two different medication lists depending on when the list was last updated and in which EHR system. This discrepancy could lead to medication errors which have been shown to increase utilization and preventable hospitalizations. In addition, multiple EHR systems and portals limit CVMC's ability to allow for self-service appointments and other functions that increase access and engagement. A unified EHR would fix this.
- When a patient presents for care to CVMC's ED, has tests ordered, and is subsequently admitted as an inpatient, CVMC inpatient nursing staff and hospitalists struggle to reconcile all of the clinical information across 4 – 5 systems. Orders and treatments could be stored in the ED system (Picis) or the inpatient system (Meditech), and if providers require medical information from the patient's CVMC primary care physician, they must then look in CVMC's ambulatory clinical system (eClinical Works). Many of CVMC's patients also receive primary care from a large UVM Medical Center family practice in Berlin, and so if CVMC providers require medical information from the UVM Medical Center practice, they must then look through the UVM Medical Center's ambulatory clinical system (Epic). CVMC invests significant resources in manually reconciling the clinical information across these disparate systems, but even high-quality manual reconciliation across thousands of encounters can result in errors. All of these inefficiencies would be remedied with a unified EHR.For CVMC primary care clinics (eClinical Works) and the UVM Medical Center family practice clinic in Berlin (Epic), patients are referred locally to CVMC for the majority of their lab (Meditech), radiology (Philips), and cardiology testing (Merge), and to the UVM Medical Center for specialized testing that is not available at CVMC (Sunquest system for lab, Merge for cardiology, and GE for radiology). Primary care physicians require access to all of this information in order to manage their patients' care. Because of the difficulties of having these

systems communicate with each other, test results do not flow from some of the different clinical systems into the EHR used by the primary care physicians (eClinical Works and Epic) while others require extensive and ongoing interfacing. This means that the primary care practices are toggling between the various systems to track down test results, or receiving paper faxes of test results, and then scanning PDFs of the test results into their EHR systems. The scanned PDF test results, because they are not digital, are not as easy to view in the EHR. It is impossible to "trend" lab tests that require an analysis of how they change over time or perform analytics on a population basis. The other option is for staff at the primary care practices to manually enter in test results into the EHR systems, but this can lend itself to human error and misunderstanding of where the tests were performed and which specialists reviewed the tests. All of this is inefficient and expensive, with staff time being spent searching through a variety of clinical systems, reviewing faxes, scanning PDFs, manually entering in data, and searching for "buried" PDFs that are embedded within the EHR. This Project will remedy these inefficiencies.

University of Vermont Medical Center

- UVM Medical Center uses Epic for its inpatient and outpatient clinical system, GE for its financial system (scheduling, registration and billing), Optum for its operating room ("OR") department, Sunquest for the lab, Merge for cardiology, CyberRen for dialysis, and GE for radiology. Not all of these systems talk to each other, and even when they do, technical problems often occur and any upgrades to any of the systems require extensive and costly testing and modifications to the interfaces to make sure essential data continues to flow between the different systems. For example, lab tests are ordered in Epic but they must make their way into the lab system for processing (Sunquest), and ensuring this compatibility requires the UVM Medical Center to have a technical IT team available 24 hours a day, 7 days a week to fix any problems that arise. With a unified EHR, the UVM Medical Center would not need to maintain expensive and complicated interfaces, as all data would be stored centrally and would not need to flow from one clinical system into another.
- UVM Medical Center's OR system (Optum) does not communicate with its inpatient and ambulatory system (Epic). This results in busy surgeons and support staff having to spend multiple hours per week synthesizing information between the two systems to review pre-operative and post-operative clinical information, and manually transfer necessary information between the two systems. The UVM Medical Center's patient registration system (GE) experienced major technical problems 19 times in 2014, 9 times in 2015 and is on a pace to have 12 outages in 2016. During these outages (which can last for hours), GE fails to transfer patient information to the other clinical systems, including the Epic EHR. When this failure occurs, Epic does not know that the patient exists, creating significant problems for coordinating the patient's care (*i.e.*, ordering tests, procedures, transferring the patient to different medical units, etc.). In fact, there were 20 "SAFE" events for 2014 and 2015 directly related to GE. SAFE events are how the UVM Medical Center tracks adverse patient outcomes or "near misses". The total to date through July 2016 is 8 events. The Project would remedy these problems.
- As the region's tertiary care provider, the UVM Medical Center receives patient transfers every single day from hospitals in the UVM Health Network. Many patients who are transferred to the UVM Medical Center are high-risk patients who arrive by ambulance

with paper copies of their medical records. In these instances, the paper medical records contain extremely important clinical information (current medications, problem lists, test results, etc.) that must be manually entered into the UVM Medical Center's clinical systems, creating opportunities for error. These patients are often transferred back to their local community hospital in the UVM Health Network once they receive the necessary tertiary intervention and stabilizing treatment, but in transferring the patients back, we encounter the same difficulties by having to provide paper copies of critical medical records to the receiving UVM Health Network hospital (medication changes, test results, discharge instructions, etc.).

- Clinical protocols at UVM Health Network hospitals are also different as a result of the different EHR systems used in each hospital. A unified EHR across the UVM Health Network will permit us to develop standardized clinical protocols for use at all UVM Health Network facilities, taking advantage of our shared knowledge and best practices developed over time. Finally, instead of having to ask patients the same questions they were asked by another UVM Health Network provider, when a patient is referred to a UVM Medical Center specialist, a unified EHR will allow providers to instantly see all of the patient's medical information from other UVM Health Network providers, avoiding the need for repetitive questioning about information already in the record (*e.g.*, prescribed medications, allergies, medical history, etc.).

Champlain Valley Physicians Hospital

- CVPH uses Soarian as its inpatient clinical system and financial system; paper medical records and two different clinical systems in the ambulatory setting (GE and Medent); two different ambulatory financial systems (Soarian and Medent); ORSOS as its OR system; Sunquest as its lab system; Siemens as its radiology system; and McKesson as its cardiology system.
- CVPH's ED and inpatient Care providers do not have access to CVPH's ambulatory clinical systems. This results in them not knowing all the various diagnoses a patient may have, and more importantly the patient's up-to-date medication list, which is usually found in the patient's primary care office. To remedy this, CVPH employs pharmacists in its ED to help bridge the gap by calling patients' primary care offices and pharmacies, but this option is only available during regular office hours for the physician offices and pharmacies. At night, ED nurses do their best to obtain the necessary medication information directly from the patient, but patients may not remember all of their medications or have the capacity to provide this information. A unified EHR will remedy these problems.
- CVPH's OR system (ORSOS) does not communicate with its inpatient system (Soarian). Scheduling information is in one system and physician ordering is in another, and relevant clinical information may be in one system but not the other. This creates an opportunity for error, as providers may not readily access the information they need. For example, a patient may have surgery and then be transferred to the inpatient unit, but the inpatient staff may not have the full picture of the patient's surgical intervention without accessing the OR system.
- Finally, as described above, CVPH routinely coordinates care with the UVM Medical Center for tertiary and specialty services, but the lack of a unified EHR creates significant difficulties for referral management and continuity of care.

For all the reasons stated above, the Project will improve the quality of care for our patients.

5. The project will not have an undue adverse impact on any other existing services provided by the applicant;

The Project will not have a material impact on any other existing services offered by the UVM Health Network. All existing services will continue to be provided by the UVM Health Network.

6. The project will serve the public good;

As described throughout this Application, we believe there are significant benefits to patients and their providers that will flow from this Project. A unified EHR across the UVM Health Network will enhance our patients' experience of care and their ability to be active partners in their care processes. Patients and providers will have access to records across all settings of care within the Network. Patients will see enhanced communication and collaboration among their providers, and their care will benefit from better local and regional are coordination.

The Project also has benefits beyond the immediate care experience for patents and their providers. A unified EHR supports the goals of health care reform – improving the patient experience, improving the health of populations, and reducing health care costs – by facilitating the appropriate collection, analysis and use of care information.

For the foregoing reasons, the Applicant believes that the Project will serve the public good.

7. If the application is for the purchase or lease of new health care information technology, it conforms with the health information technology plan established under section 9351 of this title.

In recognition of the need to expand the use of integrated health information technology for the purpose of improving patient care, the Vermont legislature amended the Certificate of Need law to provide for expedited review of all CON applications for the purchase or lease of health information technology, with approval being granted if the applications are consistent with the Health Information Technology Plan (the "HIT Plan") and the Health Resources Allocation Plan.[16] To effectuate this statutory amendment, Green Mountain Care Board Certificate of Need Rule 4.000 provides that all CON applications for the purchase or lease of information technology, regardless of cost, are eligible for expedited review.[17]

Established under 18 V.S.A. § 9351, the HIT Plan calls for the implementation of integrated health information infrastructure for the sharing of electronic health information among health care providers, patients and payers. The HIT Plan also serves as the framework for the GMCB's review of CON applications for health information technology. Among other things, the HIT Plan is intended to:

[16] 18 V.S.A. § 9440b

[17] GMCB Rule 4.000, Section 4.304(1)(b)

> Support the effective, efficient, statewide use of electronic health information in patient care, health care policymaking, clinical research, health care financing, and continuous quality improvements;
>
> Educate the general public and health care professionals about the value of an electronic health infrastructure for improving patient care; and
>
> Ensure the use of national standards for the development of an interoperable system, which shall include provisions relating to security, privacy, data content, structures and format, vocabulary, and transmission protocols.[18]

The GMCB is charged with reviewing and approving the HIT Plan, which is coordinated, administered and updated by the Secretary of Administration through the Department of Vermont Health Access. Revisions to the HIT Plan are currently being reviewed by the GMCB, in consultation with the Vermont Information Technology Leaders (VITL), but the proposed 2016 updates to the HIT Plan have not yet been approved by the GMCB. Accordingly, and consistent with the instructions we received from GMCB's General Counsel and Executive Director, in responding to this statutory criterion, our response is based on the current version of the HIT Plan, dated October 26, 2010.

By its terms, the HIT Plan seeks to transform the "health care delivery system into a comprehensively integrated, digitally powered, distributed learning network of health information to improve the quality, safety and connectedness of care."[19] To accomplish this ambitious objective, the HIT Plan encourages the adoption of interoperable electronic health records by hospitals and providers, with connectivity to the Vermont Health Information Exchange network (the "VHIE").

The VHIE, operated by VITL, is a secure computer network that connects the electronic health information systems of different health care providers, enabling those providers to share clinical and demographic data of patients they have in common. The VHIE enables access to test results, radiology reports, patient demographics, and discharge summaries from most Vermont hospitals. Some patient medication histories are available in the VHIE, as well as clinical summaries from some primary care providers. Expanding the amount and scope of patient information available in the VHIE is central to the HIT Plan, and the mission of VITL itself.

[18] 18 V.S.A. § 9351(b)

[19] "The Vermont Health Information Technology Plan," Version 4.6, dated October 26, 2010, p. 4.

Of particular significance, the HIT Plan identifies the following *Key State Goals*:

> Encourage and enable the deployment of electronic health record systems within the state to increase the amount of available electronic health information. Provide the necessary support to enable proper use of this technology within practice settings.
>
> Encourage collaborations among entities deploying EHRs to accelerate deployment and support progress towards meaningful use.
>
> EHR and ancillary systems shall comply with standards that promote their ability to exchange data with other systems.
>
> Enable consumers to take an active role in their health care by providing access to their electronic health information.
>
> Encourage the development of patient portals and interoperable connectivity to Personal Health Records.
>
> Successful, rapid deployment of EHR's in each Hospital Service Area will be based on collaborative planning among the Blueprint, the hospital, VITL and other resources in the state. Components of deployment will include: EHR Vendor Alignment.[20]

(Emphasis added.)

The UVM Health Network's plan to establish a unified EHR system among its providers is consistent with all of these key goals from the HIT Plan. The UVM Health Network unified EHR system will be a collaboration among separate health care providers for the purpose of increasing the availability of electronic health information, promoting interoperability, and facilitating improved and greater exchange of information with the VHIE. Instead of patients having to access multiple patient portals (including two at CVMC) when they see different UVM Health Network providers, with limited information available in each portal, a unified EHR will allow for the creation of one patient portal, where patients can view their medical information, communicate with their providers, schedule appointments, and view and pay bills. Finally, consistent with the HIT Plan, the Project accomplishes vendor alignment by replacing over 20 different EHR software systems across the UVM Health Network with one system, Epic.

Having one EHR vendor for all of the UVM Health Network will enable improved communication among providers, as well as the VHIE and the New York State health information exchange, HIXNY. Act 128 of 2010 required all hospitals in Vermont to connect to

[20] *Id.* at pp. 17 – 19.

the VHIE, and at a minimum, transmit patient demographic information and lab results.[21] Through its Epic system, the UVM Medical Center went one step farther and became the first hospital in Vermont to transmit immunization records to the VHIE in February 2014.[22]

Despite the UVM Medical Center's success in transmitting health information to the VHIE, the HIT Plan recognizes that interstate exchange of health information remains a problem.[23] A large percentage of the UVM Medical Center's patients are New York residents who travel to Burlington for tertiary services, but the New York State health information exchange (HIXNY) and the VHIE do not connect with each other. Because of this problem, the HIT Plan notes that "meaningful exchange [of health information] between providers in the interim will go a long way towards meeting care needs."[24] Having the New York State member hospitals of the UVM Health Network on the same medical record system as the UVM Medical Center will go a long way towards this "meaningful exchange," as the majority of the UVM Medical Center's New York patients are referred to it by the New York hospitals. In addition, the UVM Medical Center recently signed a Participation Agreement to join HIXNY, and it is in the process of setting up the secure connections to transmit and receive medical information from HIXNY for its New York patients. The Project's creation of a unified EHR with one vendor will improve our ability to exchange information with HIXNY.

Consolidation from many vendors to one (Epic) will also further the UVM Health Network's goal of maintaining national standards for privacy, security and transmission protocols. A major struggle for the Network has been to maintain a myriad of systems from vendors, which creates opportunities for security issues. Using one vendor whose product is fully-compliant with all federal and state security and safety standards will increase safeguards, and bring additional audit capabilities to the ones we use today to ensure that patient information remains secure.

Epic is also heavily invested in patient-centered research and the creation of a single record across the Network would facilitate identification of patients who are eligible for cutting-edge treatment protocols. Finally, a single, integrated EHR also would enhance the ability for the Network to maintain federal standards for billing and reporting on clinical trials.

For all the reasons describe above, the Project is in conformance with, and will help further, the objectives set forth in the HIT Plan.

---

[21] *Id.* at p. 36.

[22] Information on UVM Medical Center's submission of immunization reports to the Vermont Immunization Registry via the VHIE is available at: https://www.vitl.net/blogs/rgibson/fletcher-allen-becomes-first-hospital-report-immunizations-vhie.

[23] "The Vermont Health Information Technology Plan," Version 4.6, pp. 59 – 60.

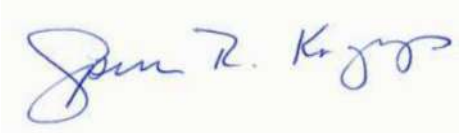
[24] *Id.* at p. 60.

CONCLUSION

For the reasons set forth herein, the Applicant respectfully requests that this Application be reviewed on an expedited basis in accordance with 18 V.S.A. § 9440b and following review, that the Application be approved.

Dated at Burlington this 3rd day of January, 2017

APPLICANT:
THE UNIVERSITY OF VERMONT MEDICAL CENTER, INC.



By: _____
Spencer R. Knapp
Sr. Vice President & General Counsel

INDEX OF EXHIBITS

Exhibit A: Cumberland Consulting letter dated December 16, 2016

Exhibit B: "Interoperability Exchange Statistics," Epic Systems Corp. (Nov. 2016)

Exhibit C: Financial projections 2017 – 2025 and summary of assumptions

Exhibit D: "Staying On Budget – Epic's Track Record," Epic Systems Corporation (2016)

EXHIBIT A

Cumberland
consulting group

December 16, 2016

John R. Brumsted, MD
President & CEO
The University of Vermont Health Network
462 Shelburne Road
Burlington, VT 05401
John.Brumsted@uvmhealth.org

RE: University of Vermont Health Network Epic Implementation Total Cost of Ownership

Dear Dr. Brumsted,

The University of Vermont Health Network ("UVMHN") engaged Cumberland Consulting Group, LLC ("Cumberland") to develop the budget for an ancillary and revenue cycle Epic system implementation for UVM Medical Center ("UVMMC"), and subsequent roll-out and implementation of UVMMC's consolidated Epic HIT system across UVMHN ("The Project"). With a consolidated Epic system, the Project would enable the creation of a common electronic health record across UVMHN. The key output of Cumberland's engagement was the creation of a Total Cost of Ownership ("TCO") model for the Project. The TCO was developed following processes commonly followed in the healthcare information technology industry.

The TCO was reviewed on an iterative basis with UVMHN leadership and Epic in order to produce a cost estimate spanning a 6-year time period of implementation and maintenance of the system. This letter may be used by UVMHN in connection with an application for a Certificate of Need to be submitted to the Green Mountain Care Board, seeking approval of the proposed Project.

By way of background, Cumberland is one of the leading consulting firms in the healthcare information technology industry. We are a strategic business advisory, process improvement, information technology implementation and support services firm serving the payer, provider and life sciences industries. KLAS, an independent healthcare research and insights firm, rated Cumberland as the top performing targeted Epic implementation firm in its 2016 Epic Consulting Performance report. KLAS ratings are based on feedback from thousands of healthcare professionals about the performance of vendors in the healthcare information technology industry. A diverse group of professionals from clinical, financial, IT leadership and

senior executives respond to surveys and offer their time for in-depth interviews with the KLAS research team in order to determine these ratings.

Cumberland has substantial experience building Epic implementation TCO models and managing large-scale Epic implementation projects. Our implementations inform our TCO models because we are able to incorporate feedback from the many implementation projects that we have completed successfully. Our track-record of successful Epic implementations began in the mid-1990s when some of our senior executives began working with Epic. Cumberland has completed, or is currently involved in, 58 Epic implementation projects – roughly 20% of Epic's customer base.

I am a founding partner of Cumberland, the company's Chief Information Officer and a member of the Board of Directors. The company was founded in 2004. Prior to Cumberland, I was an executive with Ernst & Young's healthcare consulting practice in Chicago. I have 23 years of experience planning and managing complex system implementation projects focused primarily on revenue cycle and clinical systems for large healthcare providers. My experience spans the continuum of provider environments including employed ambulatory physician practices, large hospital systems, academic medical centers, post-acute, long-term care, behavioral, correctional and safety-net environments (FQHCs and RHCs). I believe I am qualified as an expert to represent Cumberland's opinions in this letter.

To develop the TCO, Cumberland worked with key leadership and subject matter experts from UVMHN and Epic to understand network requirements, develop the implementation strategy, determine the deployment approach and estimate costs for the implementation. The cost estimates were derived by analyzing UVMHN's current and future-state needs and incorporate costs from affected UVMHN departments including facilities, finance, human resources, information systems, technology infrastructure, clinical, legal, marketing, communications, operations and revenue cycle.

The final version of the TCO for the Project is attached to this letter as Attachment 1. Costs in the TCO are grouped into the following categories: Software, Vendor Implementation, Internal and External Staffing, Technology, Facilities/Communications/Travel/Other, and Staffing and Legacy System Offsets. Cumberland provided key insight into many of these areas based on our work with the TCO and our years of experience providing implementation planning and delivery services to similar clients.

The TCO includes considerable input from Epic. Over the course of our engagement, we have worked closely with Epic to develop the implementation timeline and sequence of deployment across UVMHN. Epic has provided input on software, support, third-party systems and implementation costs from Epic's implementation services team. Epic is the leading clinical and revenue cycle system with over 190 million patients having medical records on the Epic platform. Epic is ranked as the #1 Overall Software Suite by KLAS. Cumberland has no financial ties to Epic.

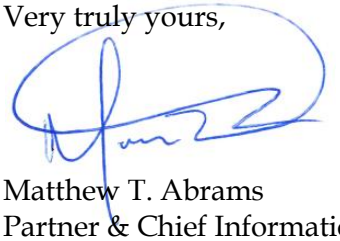
The TCO groups costs into capital and operating expense categories. It is a cash-flow model that includes capital purchases at specified times over the course of the project. Capitalization costs

follow generally accepted accounting principles ("GAAP") and include input from UVMHN auditors.

Based on our work over the course of this engagement, input from Epic, our experience developing similar models and our experience implementing Epic and other systems based on the TCO models we have developed for similar clients, it is Cumberland's opinion that the cost estimates in the TCO are reasonable and complete, and the estimates are consistent with other TCO cost estimates for projects that have been completed successfully; on-time and on-budget.

I would be pleased to answer any questions you have about the TCO and Cumberland's work. I am also looking forward to assisting the UVMHN team with the Certificate of Need review process, and responding to any questions from the Green Mountain Care Board regarding the Project and the TCO.

Very truly yours,



Matthew T. Abrams
Partner & Chief Information Officer

Attachment 1
UVMHN Epic Connect TCO - Final

Cost Estimate	FY17	FY18	FY19	FY20	FY21	FY22	TOTAL
Epic Software Costs	$ -	$ 3,990,626	$ 4,297,367	$ 6,061,808	$ -	$ -	$ 14,349,800
Epic Implementation and Travel Costs	$ -	$ 7,608,174	$ 4,221,394	$ 2,351,950	$ 1,060,102	$ -	$ 15,241,619
Required 3rd Party Software	$ -	$ 2,592,546	$ -	$ -	$ -	$ -	$ 2,592,546
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 4,641,375	$ 3,800,834	$ 2,767,777	$ 590,655	$ -	$ 11,800,641
External Staffing	$ -	$ 11,456,900	$ 11,708,700	$ 10,229,375	$ 2,990,125	$ -	$ 36,385,100
Epic Related Technology Costs (Hardware,	$ -	$ 4,196,259	$ 3,925,000	$ 2,942,500	$ 83,333	$ -	$ 11,147,093
Network Related Technology Costs	$ -	$ 3,516,900	$ 836,756	$ 805,390	$ -	$ -	$ 5,159,047
Facilities, Communications and Travel	$ -	$ 1,073,055	$ 115,480	$ -	$ -	$ -	$ 1,188,535
Pre-Implementation - External Staffing	$ 1,458,180						$ 1,458,180
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Costs	**$ 1,458,180**	**$ 39,075,835**	**$ 28,905,530**	**$ 25,158,799**	**$ 4,724,216**	**$ -**	**$ 99,322,561**
Contingency 10%	$ 145,818	$ 3,907,584	$ 2,890,553	$ 2,515,880	$ 472,422	$ -	$ 9,932,256
Grand Total Capital Costs	**$ 1,603,998**	**$ 42,983,419**	**$ 31,796,083**	**$ 27,674,679**	**$ 5,196,637**	**$ -**	**$ 109,254,817**
Epic Software Costs	$ -	$ -	$ 685,098	$ 1,630,533	$ 2,662,005	$ 3,015,509	$ 7,993,145
Required 3rd Party Software	$ -	$ -	$ 348,007	$ 718,451	$ 741,673	$ 765,709	$ 2,573,839
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 924,502	$ 3,344,949	$ 5,800,043	$ 8,507,258	$ 7,719,765	$ 26,296,516
External Staffing	$ -	$ 377,700	$ 1,101,625	$ 818,350	$ 535,075	$ -	$ 2,832,750
Epic Related Technology Costs (Hardware,	$ -	$ 1,386,000	$ 1,454,000	$ 1,472,900	$ 1,492,745	$ 1,513,582	$ 7,319,227
Network Related Technology Costs	$ -	$ 5,652,060	$ 5,449,186	$ 4,976,629	$ 5,513,847	$ 5,770,810	$ 27,362,533
Facilities, Communications and Travel	$ -	$ 265,938	$ 667,704	$ 610,692	$ 564,358	$ -	$ 2,108,691
UVMHN Staffing Offsets	$ -	$ (2,943,311)	$ (3,146,513)	$ (5,653,331)	$ (8,349,263)	$ (9,986,680)	$ (30,079,099)
UVMHN Legacy System Offsets	$ -	$ -	$ -	$ (1,956,071)	$ (3,825,902)	$ (5,890,410)	$ (11,672,383)
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total OpEx	**$ -**	**$ 5,662,888**	**$ 9,904,056**	**$ 8,418,195**	**$ 7,841,795**	**$ 2,908,285**	**$ 34,735,219**
Contingency 10%	$ -	$ 860,619.91	$ 1,305,056.85	$ 1,602,759.72	$ 2,001,696.12	$ 1,878,537.50	$ 7,648,670.10
Grand Total OpEx	**$ -**	**$ 6,523,508**	**$ 11,209,112**	**$ 10,020,955**	**$ 9,843,491**	**$ 4,786,822**	**$ 42,383,889**
Total Project Cost	**$ 1,603,998**	**$ 49,506,927**	**$ 43,005,195**	**$ 37,695,634**	**$ 15,040,128**	**$ 4,786,822**	**$ 151,638,705**

EXHIBIT B

Interoperability Exchange Statistics

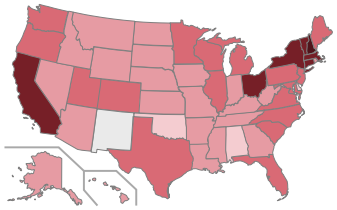
The University of Vermont Medical Center

Care Everywhere Update - November 2016

We've exchanged patient records with organizations spanning

49

states



635,311

patient records exchanged in 2016

76,901

patient records exchanged in 2015

723,975

since Care Everywhere Go-Live in 2014

We've exchanged patient records with more than

730

hospitals

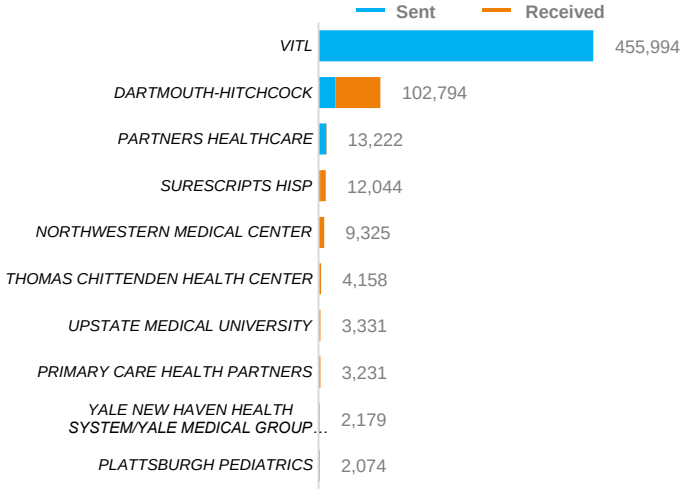
920

emergency departments and

20,440

clinics

Top Patient Record Exchange Partners In 2016



Incorporated Outside Data

In the past month, clinicians acted on:

Problems	*Allergies*	*Medications*	*Dispenses*	*Immunizations*
Disabled	***Disabled***	***Disabled***	***Disabled***	***Disabled***

Implemented Features

☑ **Carequality**

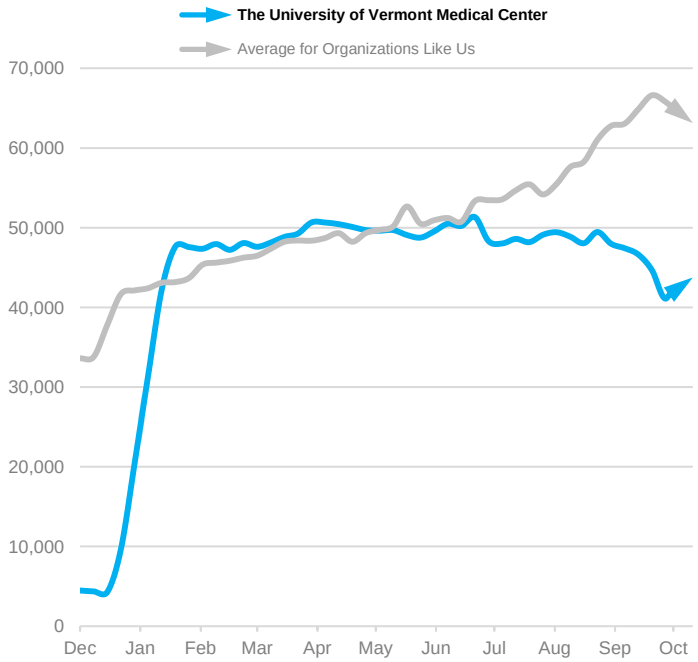
We are Carequality connected!

Connection Live Since: ***09/07/2016***

☐ **Government Connections**

Connect to the SSA, DoD, and VA

Patient Records Sent



Patient Records Received

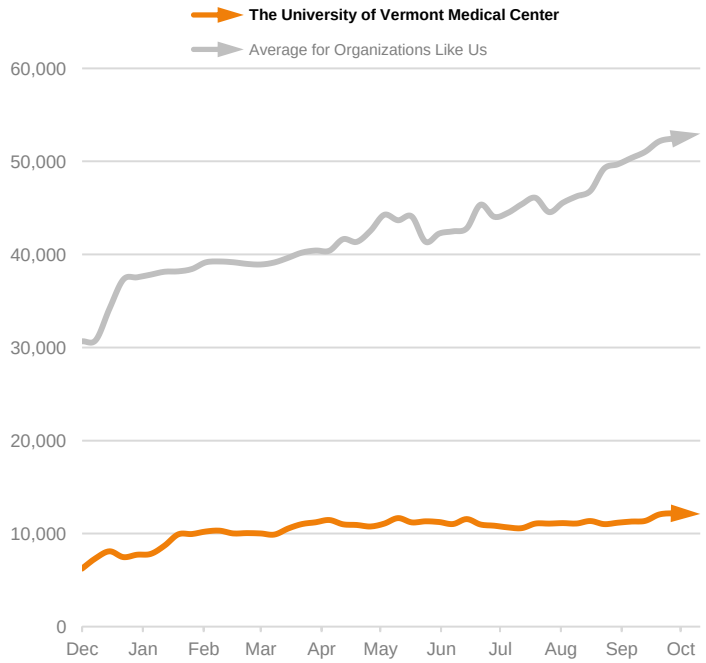


EXHIBIT C

Financial Forecasts FY2016 – FY2025
Summary of Assumptions

FY2016

- FY 2016 actual operating results

FY2017

- Based on budget, updated with margin target objectives

FY2018 – FY2025

- **Net Patient Service Revenue**
  - Fixed 3.5% increase from year to year to prepare for population health / all-payer model
- **Other Revenue**
  - Assumed a growth rate equal to expense inflation each year
- **Salary & Other Expense each year:**
  - Staff salaries 3.0%
  - MD salaries 2.0%
  - Benefits – shifts with salaries, assumed same % of salaries as FY2017
  - Med/surg supplies 3.0%
  - Pharmaceutical supplies 5.0%
  - Other supplies 2.0%
  - Purchased services 1.0%
  - Insurance + utilities 2.0%
  - Lease + rental 2.0%
- **Other Major Items:**
  - Assumes 4.0% annual return on investments
  - Includes additional pension funding 2016 – 2020
  - Annual philanthropy $5 million year
  - Additional debt:
    - 2017: $89 million to fund Miller Building
    - 2017: $20 million to fund South Burlington conversion of leases to owned sites of practice
    - 2017: $50 million added to cash balance
- **Capital**
  - FY2016 – FY2020
    - UVMMC – current capital plan $544 million
    - UVMHN (includes UVMMC) – current capital plan $697 million

- FY2021 – FY2025: estimated annual capital spend for FY2021 and increased by 3% each year
  - UVMMC – $377 million
  - UVMHN (includes UVMMC) – $548 million

- **Miller Building**
  - Includes all interest & principal payments from the $89 million financing
  - Includes additional operating expenses from business plan / CON
  - Includes philanthropy dollars not already collected
- **Epic Assumptions**:

6-Year Summary of Epic Costs & Funds Flow

	Total University of Vermont Health Network (UVMHN)	University of Vermont Medical Center (UVMMC)	Central Vermont Medical Center (CVMC)	**NY** Champlain Valley Physicians Hospital (CVPH)	**NY** Elizabethtown Community Hospital (ECH)
Total Capital Costs[1]	$109,254,817	$109,254,817	$0	$0	$0
Total Operating Costs[2]	$84,135,371	$84,135,371	$0	$0	$0
Subscription Fees[3]	$0	($28,160,039)	$9,633,978	$16,817,371	$1,708,690
Total System & Staffing Offsets[4]	($41,751,484)	($27,199,872)	($4,370,523)	($9,293,353)	($887,736)
Total Net Capital & Operating Cost of Epic Implementation	**$151,638,704**	**$138,030,277**	**$5,263,455**	**$7,524,018**	**$820,954**

Footnotes:
1 UVMMC as the licensee has all the capital costs
2 UVMMC as the Epic licensee will be allocated all operating costs
3 The UVMHN hospitals reimburse UVMMC for their share of the operating costs
4 Staffing & system offset savings generated from Epic implementation

- For fiscal years 2023 – 2025 increased total operating expense by 3.0% a year
- Model includes all depreciation expense

- **FTE Growth**:
  - Historical average growth rate has ranged between 1.0%-2.0%
  - Model assumes 0.6% growth rate for FY2018 – FY2020
  - Model assumes 1.0% growth rate for FY2021 – FY2025

- **Established margin targets by year to maintain "A" credit rating:**

	UVMHN	UVMMC	CVMC	CPI
Margin Objectives by Year:				
FY 2016 Actual	3.92%	6.27%	1.05%	-1.30%
FY 2017 Proj	2.76%	4.03%	1.12%	0.02%
FY 2018 Proj	2.35%	2.99%	1.48%	0.99%
FY 2019 Proj	2.81%	3.24%	2.06%	1.93%
FY 2020 Proj	3.38%	3.59%	3.01%	2.97%
FY 2021 Proj	3.54%	3.82%	3.02%	3.00%
FY 2022 Proj	3.55%	3.82%	3.03%	3.05%
FY 2023 Proj	3.54%	3.75%	3.06%	3.16%
FY 2024 Proj	3.44%	3.63%	3.22%	3.02%
FY 2025 Proj	3.54%	3.87%	2.95%	2.91%

- **Operational efficiencies & improvements necessary to achieve margin targets:**

	UVMHN	UVMMC	CVMC	CPI
Total Margin Initiative Improvement Objective by FY 2023	**$104,000,000**	**$75,000,000**	**$9,000,000**	**$20,000,000**
Initiative Improvement Objective by FY2018	$19,000,000	$12,500,000	$2,500,000	$4,000,000
Initiative Improvement Objective by FY2019	$24,000,000	$17,500,000	$2,500,000	$4,000,000
Initiative Improvement Objective by FY2020	$19,500,000	$15,000,000	$1,500,000	$3,000,000
Initiative Improvement Objective by FY2021	$13,500,000	$10,000,000	$500,000	$3,000,000
Initiative Improvement Objective by FY2022	$14,500,000	$10,000,000	$1,500,000	$3,000,000
Initiative Improvement Objective by FY2023	$13,500,000	$10,000,000	$500,000	$3,000,000

- **Margin improvement objective**:
  - Averages ~1.1% of total expense for years FY2018 – FY2020
  - Averages ~0.7% of total expense for years FY2021 – FY2023

Note: All projections and estimates will be updated and reviewed on an annual basis. Management's focus and responsibility will be on achieving operating margin targets as listed above by year. With each update, assumptions will be modified and appropriate actions will be taken to maintain an "A" credit rating.

(UVMHN = UVMMC + CVMC + CPI)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projection Years								
Income Statement										
Patient Revenue										
Inpatient Services	$1,213,548	$1,261,970	$1,325,069	$1,391,322	$1,460,889	$1,533,933	$1,610,630	$1,691,161	$1,775,719	$1,864,505
Outpatient Services	2,776,323	2,783,799	2,952,220	3,130,828	3,320,244	3,521,117	3,734,146	3,960,061	4,199,646	4,453,723
Gross Patient Revenue	3,989,871	4,045,769	4,277,289	4,522,150	4,781,133	5,055,050	5,344,776	5,651,222	5,975,365	6,318,228
Deductions from Patient Revenue										
Contractual Discounts	2,279,550	2,275,297	2,444,410	2,624,606	2,816,661	3,021,189	3,239,014	3,470,981	3,717,996	3,980,891
Bad Debt	44,764	39,391	41,647	44,032	46,555	49,224	52,048	55,035	58,193	61,535
Provision for Charity	25,727	18,728	19,806	20,947	22,154	23,429	24,781	26,210	27,721	29,322
Total Deductions from Revenue	2,350,041	2,333,416	2,505,863	2,689,585	2,885,370	3,093,842	3,315,843	3,552,226	3,803,910	4,071,748
Net Patient Revenue	1,639,830	1,712,353	1,771,426	1,832,565	1,895,763	1,961,208	2,028,933	2,098,996	2,171,455	2,246,480
Other Operating Revenue	161,179	122,858	131,645	140,588	144,690	148,960	153,407	158,039	162,863	167,888
Total Operating Revenue	**1,801,009**	**1,835,211**	**1,903,071**	**1,973,153**	**2,040,453**	**2,110,168**	**2,182,340**	**2,257,035**	**2,334,318**	**2,414,368**
Operating Expenses										
Salaries and Wages	823,404	855,835	885,983	917,431	950,034	989,780	1,031,113	1,073,878	1,118,744	1,165,458
Employee Benefits	237,302	238,439	247,480	257,041	266,969	279,132	291,798	304,921	318,708	333,080
Contract Labor	0	0	0	0	0	0	0	0	0	0
Professional fees	33,930	29,767	30,670	31,599	32,557	33,545	34,563	35,611	36,691	37,805
Supplies	136,081	141,249	145,957	150,830	155,875	161,097	166,510	172,110	177,913	183,920
Drugs and Pharmaceuticals	112,703	118,114	124,743	131,746	139,145	146,963	155,223	163,952	173,175	182,924
Purchased Services	89,763	89,635	86,165	73,131	57,997	49,993	35,259	23,514	25,302	27,128
Depreciation & Amortization	83,134	83,634	104,069	115,584	128,129	129,794	137,446	142,233	137,111	126,110
Interest	23,117	19,153	23,092	22,200	21,231	20,216	19,342	19,191	18,326	17,667
Other	190,980	198,596	200,239	205,669	204,287	203,422	203,511	207,398	211,380	215,462
Bad Debt Expense	0	10,200	9,971	12,537	15,232	21,555	30,015	34,365	36,613	39,260
Total Operating Expenses	1,730,414	1,784,622	1,858,369	1,917,768	1,971,456	2,035,498	2,104,780	2,177,173	2,253,963	2,328,814
Excess of Revenue over Expenses	**70,595**	**50,589**	**44,702**	**55,385**	**68,997**	**74,670**	**77,560**	**79,862**	**80,355**	**85,554**
from Operations	3.92%	2.76%	2.35%	2.81%	3.38%	3.54%	3.55%	3.54%	3.44%	3.54%
Nonoperating Revenue										
Investment Income	0	0	22,972	22,526	24,353	27,315	30,497	34,006	37,576	41,099
Interest Expense	0	0	0	0	0	0	0	0	0	0
Unrestricted Contributions	0	0	0	0	0	0	0	0	0	0
Other	6,258	17,555	0	0	0	0	0	0	0	0
Net Nonoperating Revenue	6,258	17,555	22,972	22,526	24,353	27,315	30,497	34,006	37,576	41,099
Excess of Revenue over Expenses	76,853	68,144	67,674	77,911	93,350	101,985	108,057	113,868	117,931	126,653
Before Extraordinary Items										
Extraordinary Items	0	0	0	0	0	0	0	0	0	0
Excess of Revenue over Expenses	**$76,853**	**$68,144**	**$67,674**	**$77,911**	**$93,350**	**$101,985**	**$108,057**	**$113,868**	**$117,931**	**$126,653**

(UVMHN = UVMMC + CVMC + CPI)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projection Years								
Balance Sheet - Assets										
Current Assets										
Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Portion Limites as to Use	0	0	0	0	0	0	0	0	0	0
Accounts Receivable Net of Reserves	197,886	206,244	213,942	221,324	228,954	236,209	245,032	253,492	262,239	270,556
Third Party Settlements	5,460	5,758	5,973	6,178	6,391	6,593	6,839	7,076	7,320	7,552
Supply Inventories, at cost	33,553	35,054	36,601	38,169	39,831	41,449	43,435	45,378	47,416	49,419
Prepaid Expenses and Other	27,585	28,422	29,251	29,944	30,488	31,277	32,189	33,140	34,354	35,531
Total Current Assets	264,484	275,478	285,767	295,615	305,664	315,528	327,495	339,086	351,329	363,058
Assets Limited as to Use										
Trusteed Assets	23,542	23,542	23,542	23,542	23,542	23,542	23,542	23,542	23,542	23,542
Temporary Restricted Cash	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766
Permanent Restricted Cash	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161
Board Designated Investments	704,572	792,312	762,192	785,058	885,380	987,312	1,103,596	1,227,968	1,348,657	1,469,952
Total Assets Limited as to Use	799,041	886,781	856,661	879,527	979,849	1,081,781	1,198,065	1,322,437	1,443,126	1,564,421
Property, Plant and Equipment										
Cost	1,476,066	1,617,866	1,694,066	2,004,699	2,091,099	2,208,099	2,313,468	2,421,998	2,533,784	2,648,924
Accumulated Depreciation	807,388	891,023	995,091	1,110,676	1,238,806	1,368,599	1,506,046	1,648,280	1,785,392	1,911,502
Construction in Progress	22,900	76,296	164,780	544	(782)	(10,285)	(10,285)	(10,285)	(10,285)	(10,285)
Net PP&E	691,578	803,139	863,755	894,567	851,511	829,215	797,137	763,433	738,107	727,137
Other Assets										
Investment in Subsidiaries	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170
Unamortized Financing Fees	0	0	0	0	0	0	0	0	0	0
Start-up Costs	0	0	0	0	0	0	0	0	0	0
Other Long-Term Assets	17,021	17,021	17,021	17,021	17,021	17,021	17,021	17,021	17,021	17,021
Total Other Assets	40,191	40,191	40,191	40,191	40,191	40,191	40,191	40,191	40,191	40,191
Total Assets	**$1,795,294**	**$2,005,589**	**$2,046,374**	**$2,109,900**	**$2,177,215**	**$2,266,715**	**$2,362,888**	**$2,465,147**	**$2,572,753**	**$2,694,807**
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Balance Sheet - Liabilities and Net Assets										
Current Liabilities										
Notes Payable - Line of Credit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Maturities of Debt	18,070	25,063	26,007	26,628	25,071	25,794	25,658	26,312	20,287	12,961
A/P and Accrued Expenses	203,102	209,678	217,246	223,284	228,275	235,289	243,500	251,879	262,173	272,204
Third Party Settlements	15,720	16,365	16,972	17,556	18,157	18,729	19,428	20,098	20,791	21,448
Other Accrued Liabilities	30,862	30,862	30,862	30,862	30,862	30,862	30,862	30,862	30,862	30,862
Total Current Liabilities	267,754	281,968	291,087	298,330	302,365	310,674	319,448	329,151	334,113	337,475
Other Liabilities										
Pension and Other Postretirement Benefit Obligations	94,420	94,420	94,420	94,420	94,420	94,420	94,420	94,420	94,420	94,420
Other Long-Term Liabilities	41,889	41,889	41,889	41,889	41,889	41,889	41,889	41,889	41,889	41,889
Total Other Liabilities	136,309	136,309	136,309	136,309	136,309	136,309	136,309	136,309	136,309	136,309
Long-Term Debt	425,337	564,274	543,267	516,639	491,569	465,774	440,116	413,804	393,517	380,556
Net Assets										
Fund Balance (Unrestricted)	894,971	952,115	1,004,788	1,087,699	1,176,049	1,283,035	1,396,092	1,514,960	1,637,891	1,769,544
Temporarily Restricted Fund Balance	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766
Permanently Restricted Net Assets	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161
Total Fund	965,898	1,023,042	1,075,715	1,158,626	1,246,976	1,353,962	1,467,019	1,585,887	1,708,818	1,840,471
Total Liabilities & Net Assets	**$1,795,298**	**$2,005,593**	**$2,046,378**	**$2,109,904**	**$2,177,219**	**$2,266,719**	**$2,362,892**	**$2,465,151**	**$2,572,757**	**$2,694,811**

(UVMHN = UVMMC + CVMC + CPI)

Filter | Financial Charts | Capital Analysis | Control

		Projection Years								
	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
Statement of Changes in Net Assets										
Unrestricted Net Assets:										
Beginning Unrestricted Net Assets	$818,119	$894,971	$952,115	$1,004,788	$1,087,699	$1,176,049	$1,283,035	$1,396,092	$1,514,960	$1,637,891
Net Income (Loss)	76,853	68,144	67,674	77,911	93,350	101,985	108,057	113,868	117,931	126,653
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Transfers (to) from Affiliates	0	0	0	0	0	0	0	0	0	0
Restricted Contributions Used for Property Acquisitions	0	0	0	0	0	0	0	0	0	0
Extraordinary Gain (Loss)	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Additional Minimum Pension Liability	4,000	(10,000)	(10,000)	(10,000)	(10,000)	0	0	0	0	0
Other Unrestricted Activity	(4,000)	(1,000)	(5,000)	15,000	5,000	5,000	5,000	5,000	5,000	5,000
Increase (Decrease) in Unrestricted Net Assets	76,853	57,144	52,674	82,911	88,350	106,985	113,057	118,868	122,931	131,653
Total Unrestricted Net Assets	894,972	952,115	1,004,789	1,087,699	1,176,049	1,283,034	1,396,092	1,514,960	1,637,891	1,769,544
Temporarily Restricted Net Assets:										
Beginning Temporarily Restricted Net Assets	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Net Assets Released from Restrictions	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Temporarily Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Temporarily Restricted Net Assets	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766
Permanently Restricted Net Assets:										
Beginning Permanently Restricted Net Assets	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Permanently Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Permanently Restricted Net Assets	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161	33,161
Total Net Assets	**$965,899**	**$1,023,042**	**$1,075,716**	**$1,158,626**	**$1,246,976**	**$1,353,961**	**$1,467,019**	**$1,585,887**	**$1,708,818**	**$1,840,471**

(UVMHN = UVMMC + CVMC + CPI)

Filter | Financial Charts | Capital Analysis | Control

		Projection Years								
	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cash Flow Statement										
Sources of Cash:										
Excess of Revenues over Expenses										
from Operations	$70,595	$50,589	$44,702	$55,385	$68,997	$74,670	$77,560	$79,862	$80,355	$85,554
Net Nonoperating Income, Excluding										
Interest Income and Expense	6,258	17,555	0	0	0	0	0	0	0	0
Extraordinary Items, Transfers and Other	0	0	0	0	0	0	0	0	0	0
Items Not Affecting Working Capital:										
Depreciation	83,134	83,634	104,069	115,584	128,129	129,794	137,446	142,233	137,111	126,110
Amortization of Financing Costs	0	0	0	0	0	0	0	0	0	0
Other	0	(11,000)	(15,000)	5,000	(5,000)	5,000	5,000	5,000	5,000	5,000
Long Term Debt Proceeds	0	164,000	5,000	0	0	0	0	0	0	0
Total Sources of Cash	159,987	304,778	138,771	175,969	192,126	209,464	220,006	227,095	222,466	216,664
Uses of Cash:										
Change in Working Capital, Excluding										
Current Portion of Debt	($2,481)	$3,773	$2,114	$3,226	$4,457	$2,278	$3,057	$2,542	$1,256	$1,041
Additions to Property, Plant										
& Equipment, net	106,700	195,195	164,685	146,396	85,073	107,498	105,368	108,529	111,785	115,140
Long Term Debt Principal										
Repayments	13,995	18,070	25,063	26,007	26,627	25,072	25,794	25,658	26,312	20,287
Total Uses of Cash	118,214	217,038	191,862	175,629	116,157	134,848	134,219	136,729	139,353	136,468
Cash Provided (Used) Prior to										
Interest Income	41,773	87,740	(53,091)	340	75,969	74,616	85,787	90,366	83,113	80,196
Cash Provided from Interest Income	0	0	22,972	22,526	24,353	27,315	30,497	34,006	37,576	41,099
Cash Used by Interest Expense	0	0	0	0	0	0	0	0	0	0
Cash Provided (Used)	41,773	87,740	(30,119)	22,866	100,322	101,931	116,284	124,372	120,689	121,295
Cash Balance, beginning of period	757,269	799,041	886,781	856,661	879,527	979,849	1,081,781	1,198,065	1,322,437	1,443,126
Cash Balance, end of period	$799,042	$886,781	$856,662	$879,527	$979,849	$1,081,780	$1,198,065	$1,322,437	$1,443,126	$1,564,421
Summary of Cash and Investments										
Operating Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Board Designated Assets	704,572	792,312	762,192	785,058	885,380	987,312	1,103,596	1,227,968	1,348,657	1,469,952
Trusteed Assets and Restricted Funds	94,469	94,469	94,469	94,469	94,469	94,469	94,469	94,469	94,469	94,469
Total	$799,041	$886,781	$856,661	$879,527	$979,849	$1,081,781	$1,198,065	$1,322,437	$1,443,126	$1,564,421

	A	E	F	G	H	I	J	K	L	M	N
2	(UVMHN = UVMMC + CVMC + CPI)										
3											
4											
5											
6			Projection Years								
7		2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
215	**Statistics and Ratios**										
216											
217											
218	**Key Financial Statistics**										
219	Net Patient Revenue	1,639,830	1,712,353	1,771,426	1,832,565	1,895,763	1,961,208	2,028,933	2,098,996	2,171,455	2,246,480
220	Operating Income	70,595	50,589	44,702	55,385	68,997	74,670	77,560	79,862	80,355	85,554
221	Operating EBIDA	176,846	153,376	171,863	193,169	218,357	224,681	234,348	241,286	235,792	229,331
222	Excess Revenue over Expenses	76,853	68,144	67,674	77,911	93,350	101,985	108,057	113,868	117,931	126,653
223	EBIDA	183,104	170,931	194,835	215,695	242,710	251,996	264,845	275,292	273,368	270,430
224	Unrestricted Cash	704,572	792,312	762,192	785,058	885,380	987,312	1,103,596	1,227,968	1,348,657	1,469,952
225	Long Term Debt	425,337	564,274	543,267	516,639	491,569	465,774	440,116	413,804	393,517	380,556
226											
227	**FTE Analysis**										
228	Total FTE's	10,773	10,989	11,054	11,121	11,189	11,304	11,419	11,534	11,652	11,771
229											
230	**Profitability Ratios**										
231	Operating Margin	3.92%	2.76%	2.35%	2.81%	3.38%	3.54%	3.55%	3.54%	3.44%	3.54%
232	Operating EBIDA Margin	9.82%	8.36%	9.03%	9.79%	10.70%	10.65%	10.74%	10.69%	10.10%	9.50%
233	Excess Margin	4.25%	3.68%	3.51%	3.90%	4.52%	4.77%	4.88%	4.97%	4.97%	5.16%
234											
235	**Capital Structure Ratios**										
236	Debt to Capitalization	33.13%	38.23%	36.17%	33.31%	30.52%	27.70%	25.02%	22.51%	20.17%	18.19%
237	Debt Service Coverage	4.93	4.59	4.05	4.47	5.07	5.56	5.87	6.14	6.12	7.13
238	Debt Service / Revenues	2.05%	2.01%	2.50%	2.42%	2.32%	2.12%	2.04%	1.96%	1.88%	1.55%
239	Cushion	18.98	21.29	15.83	16.29	18.50	21.80	24.45	27.38	30.21	38.73
240											
241	**Liquidity Ratios**										
242	Days Cash on Hand	156.12	170.02	158.58	159.00	175.32	189.10	204.75	220.26	232.54	243.58
243	Cash to Debt	165.65%	140.41%	140.30%	151.95%	180.11%	211.97%	250.75%	296.75%	342.72%	386.26%
244											
245	**Other Ratios**										
246	Average Age of Plant	9.71	10.65	9.56	9.61	9.67	10.54	10.96	11.59	13.02	15.16
247	Capital Spending Ratio	128.35%	233.39%	158.25%	126.66%	66.40%	82.82%	76.66%	76.30%	81.53%	91.30%
248											
249	**Working Capital Ratios**										
250	Days in Accounts Receivable	44.05	43.96	44.08	44.08	44.08	43.96	44.08	44.08	44.08	43.96
251	Days in A/P and Accrued Expenses	51.84	51.62	51.62	51.47	51.31	50.98	50.90	50.71	50.53	50.22

(UVMMC)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projection Years								
Income Statement										
Patient Revenue										
Inpatient Services	$721,419	$765,740	$804,027	$844,229	$886,440	$930,762	$977,300	$1,026,165	$1,077,474	$1,131,347
Outpatient Services	1,747,965	1,739,970	1,845,238	1,956,875	2,075,266	2,200,819	2,333,969	2,475,173	2,624,922	2,783,729
Gross Patient Revenue	2,469,384	2,505,710	2,649,265	2,801,104	2,961,706	3,131,581	3,311,269	3,501,338	3,702,396	3,915,076
Deductions from Patient Revenue										
Contractual Discounts	1,362,976	1,366,086	1,469,292	1,579,302	1,696,593	1,821,602	1,954,758	2,096,609	2,247,711	2,408,661
Bad Debt	26,410	20,713	21,900	23,157	24,486	25,891	27,379	28,953	30,617	32,377
Provision for Charity	17,448	10,677	11,295	11,950	12,642	13,374	14,149	14,970	15,838	16,757
Total Deductions from Revenue	1,406,834	1,397,476	1,502,487	1,614,409	1,733,721	1,860,867	1,996,286	2,140,532	2,294,166	2,457,795
Net Patient Revenue	1,062,550	1,108,234	1,146,778	1,186,695	1,227,985	1,270,714	1,314,983	1,360,806	1,408,230	1,457,281
Other Operating Revenue	119,171	92,154	100,327	108,643	112,107	115,726	119,508	123,461	127,594	131,914
Total Operating Revenue	**1,181,721**	**1,200,388**	**1,247,105**	**1,295,338**	**1,340,092**	**1,386,440**	**1,434,491**	**1,484,267**	**1,535,824**	**1,589,195**
Operating Expenses										
Salaries and Wages	508,725	531,982	550,845	570,586	591,068	616,492	642,870	670,073	698,761	728,557
Employee Benefits	154,564	155,713	161,629	167,941	174,501	182,617	191,047	199,755	208,944	218,499
Contract Labor	0	0	0	0	0	0	0	0	0	0
Professional fees	19,186	19,470	20,054	20,655	21,275	21,913	22,571	23,248	23,945	24,664
Supplies	85,868	93,469	93,500	95,176	97,509	99,591	103,723	107,322	111,053	114,915
Drugs and Pharmaceuticals	77,559	82,024	86,624	91,485	96,620	102,046	107,779	113,837	120,238	127,003
Purchased Services	46,488	49,072	51,626	44,610	33,487	28,487	17,752	8,999	10,273	11,576
Depreciation & Amortization	50,476	50,459	66,967	77,370	91,005	93,236	100,649	105,760	101,471	90,940
Interest	18,435	14,916	18,772	18,247	17,698	17,105	16,476	16,547	15,909	15,428
Other	146,370	154,933	156,890	161,698	160,573	160,963	162,822	165,950	169,155	172,441
Bad Debt Expense	0	0	2,971	5,537	8,232	11,055	14,015	17,115	20,363	23,760
Total Operating Expenses	1,107,671	1,152,038	1,209,878	1,253,305	1,291,968	1,333,506	1,379,704	1,428,606	1,480,112	1,527,783
Excess of Revenue over Expenses	**74,050**	**48,350**	**37,227**	**42,033**	**48,124**	**52,934**	**54,787**	**55,661**	**55,712**	**61,412**
from Operations	**6.27%**	**4.03%**	**2.99%**	**3.24%**	**3.59%**	**3.82%**	**3.82%**	**3.75%**	**3.63%**	**3.86%**
Nonoperating Revenue										
Investment Income	0	0	19,741	19,022	20,264	22,539	25,039	27,830	30,669	33,450
Interest Expense	0	0	0	0	0	0	0	0	0	0
Unrestricted Contributions	0	0	0	0	0	0	0	0	0	0
Other	15,864	15,257	0	0	0	0	0	0	0	0
Net Nonoperating Revenue	15,864	15,257	19,741	19,022	20,264	22,539	25,039	27,830	30,669	33,450
Excess of Revenue over Expenses	89,914	63,607	56,968	61,055	68,388	75,473	79,826	83,491	86,381	94,862
Before Extraordinary Items										
Extraordinary Items	0	0	0	0	0	0	0	0	0	0
Excess of Revenue over Expenses	**$89,914**	**$63,607**	**$56,968**	**$61,055**	**$68,388**	**$75,473**	**$79,826**	**$83,491**	**$86,381**	**$94,862**

(UVMMC)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projection Years								
Balance Sheet - Assets										
Current Assets										
Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Portion Limites as to Use	0	0	0	0	0	0	0	0	0	0
Accounts Receivable Net of Reserves	128,824	133,995	139,036	143,875	148,881	153,641	159,429	164,985	170,734	176,198
Third Party Settlements	5,460	5,758	5,973	6,178	6,391	6,593	6,839	7,076	7,320	7,552
Supply Inventories, at cost	23,944	25,642	26,391	27,348	28,443	29,462	30,988	32,403	33,887	35,348
Prepaid Expenses and Other	23,436	24,328	25,071	25,686	26,139	26,809	27,598	28,404	29,459	30,480
Total Current Assets	181,664	189,723	196,471	203,087	209,854	216,505	224,854	232,868	241,400	249,578
Assets Limited as to Use										
Trusteed Assets	21,597	21,597	21,597	21,597	21,597	21,597	21,597	21,597	21,597	21,597
Temporary Restricted Cash	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112
Permanent Restricted Cash	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160
Board Designated Investments	584,190	686,001	649,822	657,094	733,109	812,307	904,515	1,003,705	1,099,376	1,194,766
Total Assets Limited as to Use	663,059	764,870	728,691	735,963	811,978	891,176	983,384	1,082,574	1,178,245	1,273,635
Property, Plant and Equipment										
Cost	1,014,726	1,116,126	1,159,826	1,445,259	1,507,959	1,592,659	1,664,759	1,739,022	1,815,513	1,894,299
Accumulated Depreciation	581,377	631,837	698,803	776,172	867,178	960,414	1,061,063	1,166,824	1,268,296	1,359,236
Construction in Progress	22,900	76,296	164,780	544	(782)	(10,285)	(10,285)	(10,285)	(10,285)	(10,285)
Net PP&E	456,249	560,585	625,803	669,631	639,999	621,960	593,411	561,913	536,932	524,778
Other Assets										
Investment in Subsidiaries	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170	23,170
Unamortized Financing Fees	0	0	0	0	0	0	0	0	0	0
Start-up Costs	0	0	0	0	0	0	0	0	0	0
Other Long-Term Assets	8,781	8,781	8,781	8,781	8,781	8,781	8,781	8,781	8,781	8,781
Total Other Assets	31,951	31,951	31,951	31,951	31,951	31,951	31,951	31,951	31,951	31,951
Total Assets	**$1,332,923**	**$1,547,129**	**$1,582,916**	**$1,640,632**	**$1,693,782**	**$1,761,592**	**$1,833,600**	**$1,909,306**	**$1,988,528**	**$2,079,942**
	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Balance Sheet - Liabilities and Net Assets										
Current Liabilities										
Notes Payable - Line of Credit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Maturities of Debt	8,072	17,094	17,591	18,348	18,326	19,491	19,668	20,799	16,840	12,961
A/P and Accrued Expenses	153,201	159,196	165,622	170,407	174,034	179,239	185,351	191,697	199,782	207,647
Third Party Settlements	12,396	13,073	13,560	14,027	14,509	14,967	15,527	16,064	16,619	17,146
Other Accrued Liabilities	11,833	11,833	11,833	11,833	11,833	11,833	11,833	11,833	11,833	11,833
Total Current Liabilities	185,502	201,196	208,606	214,615	218,702	225,530	232,379	240,393	245,074	249,587
Other Liabilities										
Pension and Other Postretirement Benefit Obligations	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125
Other Long-Term Liabilities	15,826	15,826	15,826	15,826	15,826	15,826	15,826	15,826	15,826	15,826
Total Other Liabilities	29,951	29,951	29,951	29,951	29,951	29,951	29,951	29,951	29,951	29,951
Long-Term Debt	331,731	473,636	456,045	437,697	419,372	399,880	380,213	359,414	342,574	329,613
Net Assets										
Fund Balance (Unrestricted)	728,470	785,077	831,045	901,100	968,488	1,048,962	1,133,788	1,222,279	1,313,660	1,413,522
Temporarily Restricted Fund Balance	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112
Permanently Restricted Net Assets	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160
Total Fund	785,742	842,349	888,317	958,372	1,025,760	1,106,234	1,191,060	1,279,551	1,370,932	1,470,794
Total Liabilities & Net Assets	**$1,332,926**	**$1,547,132**	**$1,582,919**	**$1,640,635**	**$1,693,785**	**$1,761,595**	**$1,833,603**	**$1,909,309**	**$1,988,531**	**$2,079,945**

(UVMMC)

Filter | Financial Charts | Capital Analysis | Control

		Projection Years								
	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
Statement of Changes in Net Assets										
Unrestricted Net Assets:										
Beginning Unrestricted Net Assets	$648,556	$728,470	$785,077	$831,045	$901,100	$968,488	$1,048,962	$1,133,788	$1,222,279	$1,313,660
Net Income (Loss)	89,914	63,607	56,968	61,055	68,388	75,473	79,826	83,491	86,381	94,862
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Transfers (to) from Affiliates	0	0	0	0	0	0	0	0	0	0
Restricted Contributions Used for Property Acquisitions	0	0	0	0	0	0	0	0	0	0
Extraordinary Gain (Loss)	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Additional Minimum Pension Liability	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	0	0	0	0	0
Other Unrestricted Activity	(4,000)	(1,000)	(5,000)	15,000	5,000	5,000	5,000	5,000	5,000	5,000
Increase (Decrease) in Unrestricted Net Assets	79,914	56,607	45,968	70,055	67,388	80,473	84,826	88,491	91,381	99,862
Total Unrestricted Net Assets	728,470	785,077	831,045	901,100	968,488	1,048,961	1,133,788	1,222,279	1,313,660	1,413,522
Temporarily Restricted Net Assets:										
Beginning Temporarily Restricted Net Assets	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Net Assets Released from Restrictions	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Temporarily Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Temporarily Restricted Net Assets	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112	29,112
Permanently Restricted Net Assets:										
Beginning Permanently Restricted Net Assets	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Permanently Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Permanently Restricted Net Assets	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160	28,160
Total Net Assets	**$785,742**	**$842,349**	**$888,317**	**$958,372**	**$1,025,760**	**$1,106,233**	**$1,191,060**	**$1,279,551**	**$1,370,932**	**$1,470,794**

(UVMMC)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	Projection Years 2017	2018	2019	2020	2021	2022	2023	2024	2025
Cash Flow Statement										
Sources of Cash:										
Excess of Revenues over Expenses										
from Operations	$74,050	$48,350	$37,227	$42,033	$48,124	$52,934	$54,787	$55,661	$55,712	$61,412
Net Nonoperating Income, Excluding										
Interest Income and Expense	15,864	15,257	0	0	0	0	0	0	0	0
Extraordinary Items, Transfers and Other	0	0	0	0	0	0	0	0	0	0
Items Not Affecting Working Capital:										
Depreciation	50,476	50,459	66,967	77,370	91,005	93,236	100,649	105,760	101,471	90,940
Amortization of Financing Costs	0	0	0	0	0	0	0	0	0	0
Other	(10,000)	(7,000)	(11,000)	9,000	(1,000)	5,000	5,000	5,000	5,000	5,000
Long Term Debt Proceeds	0	159,000	0	0	0	0	0	0	0	0
Total Sources of Cash	130,390	266,066	93,194	128,403	138,129	151,170	160,436	166,421	162,183	157,352
Uses of Cash:										
Change in Working Capital, Excluding										
Current Portion of Debt	($2,671)	$1,387	($165)	$1,364	$2,658	$988	$1,677	$1,131	($108)	($214)
Additions to Property, Plant										
& Equipment, net	75,400	154,795	132,185	121,198	61,373	75,197	72,100	74,262	76,490	78,786
Long Term Debt Principal										
Repayments	11,346	8,073	17,094	17,591	18,347	18,327	19,490	19,668	20,799	16,840
Total Uses of Cash	84,075	164,255	149,114	140,153	82,378	94,512	93,267	95,061	97,181	95,412
Cash Provided (Used) Prior to										
Interest Income	46,315	101,811	(55,920)	(11,750)	55,751	56,658	67,169	71,360	65,002	61,940
Cash Provided from Interest Income	0	0	19,741	19,022	20,264	22,539	25,039	27,830	30,669	33,450
Cash Used by Interest Expense	0	0	0	0	0	0	0	0	0	0
Cash Provided (Used)	46,315	101,811	(36,179)	7,272	76,015	79,197	92,208	99,190	95,671	95,390
Cash Balance, beginning of period	616,744	663,059	764,870	728,691	735,963	811,978	891,176	983,384	1,082,574	1,178,245
Cash Balance, end of period	$663,059	$764,870	$728,691	$735,963	$811,978	$891,175	$983,384	$1,082,574	$1,178,245	$1,273,635
Summary of Cash and Investments										
Operating Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Board Designated Assets	584,190	686,001	649,822	657,094	733,109	812,307	904,515	1,003,705	1,099,376	1,194,766
Trusteed Assets and Restricted Funds	78,869	78,869	78,869	78,869	78,869	78,869	78,869	78,869	78,869	78,869
Total	$663,059	$764,870	$728,691	$735,963	$811,978	$891,176	$983,384	$1,082,574	$1,178,245	$1,273,635

	A	E	F	G	H	I	J	K	L	M	N
2	(UVMMC)										
3			Filter	Financial Charts	Capital Analysis	Control					
4											
5											
6			Projection Years								
7		2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
215	**Statistics and Ratios**										
216											
217											
218	**Key Financial Statistics**										
219	Net Patient Revenue	1,062,550	1,108,234	1,146,778	1,186,695	1,227,985	1,270,714	1,314,983	1,360,806	1,408,230	1,457,281
220	Operating Income	74,050	48,350	37,227	42,033	48,124	52,934	54,787	55,661	55,712	61,412
221	Operating EBIDA	142,961	113,725	122,966	137,650	156,827	163,276	171,912	177,968	173,092	167,780
222	Excess Revenue over Expenses	89,914	63,607	56,968	61,055	68,388	75,473	79,826	83,491	86,381	94,862
223	EBIDA	158,825	128,982	142,707	156,672	177,091	185,815	196,951	205,798	203,761	201,230
224	Unrestricted Cash	584,190	686,001	649,822	657,094	733,109	812,307	904,515	1,003,705	1,099,376	1,194,766
225	Long Term Debt	331,731	473,636	456,045	437,697	419,372	399,880	380,213	359,414	342,574	329,613
226											
227	**FTE Analysis**										
228	Total FTE's	6,441	6,577	6,616	6,657	6,698	6,769	6,838	6,907	6,978	7,049
229											
230	**Profitability Ratios**										
231	Operating Margin	6.27%	4.03%	2.99%	3.24%	3.59%	3.82%	3.82%	3.75%	3.63%	3.86%
232	Operating EBIDA Margin	12.10%	9.47%	9.86%	10.63%	11.70%	11.78%	11.98%	11.99%	11.27%	10.56%
233	Excess Margin	7.51%	5.23%	4.50%	4.65%	5.03%	5.36%	5.47%	5.52%	5.51%	5.85%
234											
235	**Capital Structure Ratios**										
236	Debt to Capitalization	31.81%	38.46%	36.30%	33.60%	31.13%	28.56%	26.07%	23.73%	21.48%	19.51%
237	Debt Service Coverage	5.33	5.61	3.98	4.37	4.91	5.24	5.48	5.68	5.55	6.24
238	Debt Service / Revenues	2.49%	1.89%	2.83%	2.73%	2.65%	2.51%	2.46%	2.40%	2.34%	1.99%
239	Cushion	19.62	29.84	18.12	18.34	20.34	22.93	25.15	27.72	29.95	37.03
240											
241	**Liquidity Ratios**										
242	Days Cash on Hand	201.69	227.30	207.53	203.96	222.81	239.05	258.12	276.94	291.06	303.51
243	Cash to Debt	176.10%	144.84%	142.49%	150.13%	174.81%	203.14%	237.90%	279.26%	320.92%	362.48%
244											
245	**Other Ratios**										
246	Average Age of Plant	11.52	12.52	10.44	10.03	9.53	10.30	10.54	11.03	12.50	14.95
247	Capital Spending Ratio	149.38%	306.77%	197.39%	156.65%	67.44%	80.65%	71.64%	70.22%	75.38%	86.64%
248											
249	**Working Capital Ratios**										
250	Days in Accounts Receivable	44.25	44.13	44.25	44.25	44.25	44.13	44.25	44.25	44.25	44.13
251	Days in A/P and Accrued Expenses	56.98	56.67	56.67	56.57	56.49	56.23	56.27	56.16	56.03	55.75

(CVMC)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	Projection Years 2017	2018	2019	2020	2021	2022	2023	2024	2025
Income Statement										
Patient Revenue										
Inpatient Services	$107,099	$106,930	$112,276	$117,890	$123,785	$129,974	$136,473	$143,296	$150,461	$157,984
Outpatient Services	269,268	262,554	278,439	295,284	313,149	332,094	352,186	373,493	396,090	420,053
Gross Patient Revenue	376,367	369,484	390,715	413,174	436,934	462,068	488,659	516,789	546,551	578,037
Deductions from Patient Revenue										
Contractual Discounts	185,344	177,851	192,233	207,584	223,979	241,478	260,155	280,090	301,351	324,025
Bad Debt	5,194	4,843	5,122	5,416	5,727	6,057	6,406	6,775	7,165	7,578
Provision for Charity	3,964	4,736	5,008	5,295	5,599	5,920	6,261	6,621	7,001	7,404
Total Deductions from Revenue	194,502	187,430	202,363	218,295	235,305	253,455	272,822	293,486	315,517	339,007
Net Patient Revenue	181,865	182,054	188,352	194,879	201,629	208,613	215,837	223,303	231,034	239,030
Other Operating Revenue	12,479	11,364	11,591	11,823	12,059	12,300	12,546	12,797	13,053	13,314
Total Operating Revenue	**194,344**	**193,418**	**199,943**	**206,702**	**213,688**	**220,913**	**228,383**	**236,100**	**244,087**	**252,344**
Operating Expenses										
Salaries and Wages	102,682	103,801	107,581	111,505	115,553	120,667	126,014	131,547	137,257	143,245
Employee Benefits	27,041	26,433	27,486	28,582	29,713	31,176	32,710	34,298	35,939	37,663
Contract Labor	0	0	0	0	0	0	0	0	0	0
Professional fees	2,301	1,750	1,803	1,857	1,912	1,970	2,029	2,090	2,152	2,217
Supplies	12,626	12,149	13,607	14,554	15,329	16,245	16,519	17,034	17,567	18,119
Drugs and Pharmaceuticals	10,729	10,749	11,353	11,991	12,665	13,377	14,129	14,924	15,764	16,652
Purchased Services	9,023	7,713	5,306	2,901	1,497	1,095	(307)	(707)	(605)	(502)
Depreciation & Amortization	9,716	10,108	12,728	13,827	13,500	12,673	11,958	10,812	10,065	9,893
Interest	753	501	657	538	425	308	198	116	36	0
Other	17,423	16,542	16,459	16,697	16,668	16,232	16,220	16,506	16,799	17,099
Bad Debt Expense	0	1,500	0	0	0	500	2,000	2,250	1,250	500
Total Operating Expenses	192,294	191,246	196,980	202,452	207,262	214,243	221,470	228,870	236,224	244,886
Excess of Revenue over Expenses	**2,050**	**2,172**	**2,963**	**4,250**	**6,426**	**6,670**	**6,913**	**7,230**	**7,863**	**7,458**
from Operations	1.05%	1.12%	1.48%	2.06%	3.01%	3.02%	3.03%	3.06%	3.22%	2.96%
Nonoperating Revenue										
Investment Income	0	0	1,534	1,593	1,654	1,798	1,996	2,185	2,368	2,567
Interest Expense	0	0	0	0	0	0	0	0	0	0
Unrestricted Contributions	0	0	0	0	0	0	0	0	0	0
Other	(5,951)	1,873	0	0	0	0	0	0	0	0
Net Nonoperating Revenue	(5,951)	1,873	1,534	1,593	1,654	1,798	1,996	2,185	2,368	2,567
Excess of Revenue over Expenses	(3,901)	4,045	4,497	5,843	8,080	8,468	8,909	9,415	10,231	10,025
Before Extraordinary Items										
Extraordinary Items	0	0	0	0	0	0	0	0	0	0
Excess of Revenue over Expenses	**($3,901)**	**$4,045**	**$4,497**	**$5,843**	**$8,080**	**$8,468**	**$8,909**	**$9,415**	**$10,231**	**$10,025**

(CVMC)

Filter | Financial Charts | Capital Analysis | Control

	2016 Actual	Projection Years 2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet - Assets										
Current Assets										
Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Portion Limites as to Use	0	0	0	0	0	0	0	0	0	0
Accounts Receivable Net of Reserves	19,131	19,098	19,813	20,500	21,210	21,885	22,704	23,490	24,303	25,075
Third Party Settlements	0	0	0	0	0	0	0	0	0	0
Supply Inventories, at cost	3,943	3,856	4,214	4,482	4,727	4,988	5,175	5,396	5,628	5,855
Prepaid Expenses and Other	3,149	3,094	3,180	3,258	3,349	3,468	3,591	3,736	3,895	4,051
Total Current Assets	26,223	26,048	27,207	28,240	29,286	30,341	31,470	32,622	33,826	34,981
Assets Limited as to Use										
Trusteed Assets	0	0	0	0	0	0	0	0	0	0
Temporary Restricted Cash	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074
Permanent Restricted Cash	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326
Board Designated Investments	51,444	49,774	54,069	55,234	58,298	65,035	71,810	78,063	84,358	91,677
Total Assets Limited as to Use	59,844	58,174	62,469	63,634	66,698	73,435	80,210	86,463	92,758	100,077
Property, Plant and Equipment										
Cost	174,565	188,665	198,965	209,265	219,565	229,865	240,474	251,401	262,656	274,249
Accumulated Depreciation	103,167	113,275	126,002	139,830	153,330	166,002	177,960	188,772	198,837	208,730
Construction in Progress	0	0	0	0	0	0	0	0	0	0
Net PP&E	71,398	75,390	72,963	69,435	66,235	63,863	62,514	62,629	63,819	65,519
Other Assets										
Investment in Subsidiaries	0	0	0	0	0	0	0	0	0	0
Unamortized Financing Fees	0	0	0	0	0	0	0	0	0	0
Start-up Costs	0	0	0	0	0	0	0	0	0	0
Other Long-Term Assets	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
Total Other Assets	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531	1,531
Total Assets	**$158,996**	**$161,143**	**$164,170**	**$162,840**	**$163,750**	**$169,170**	**$175,725**	**$183,245**	**$191,934**	**$202,108**
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Balance Sheet - Liabilities and Net Assets										
Current Liabilities										
Notes Payable - Line of Credit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Current Maturities of Debt	2,718	2,959	3,730	3,803	3,878	3,331	2,871	2,479	790	0
A/P and Accrued Expenses	17,446	17,261	17,606	18,024	18,514	19,208	20,019	20,836	21,610	22,393
Third Party Settlements	3,914	3,918	4,062	4,201	4,344	4,480	4,646	4,805	4,969	5,125
Other Accrued Liabilities	2,646	2,646	2,646	2,646	2,646	2,646	2,646	2,646	2,646	2,646
Total Current Liabilities	26,724	26,784	28,044	28,674	29,382	29,665	30,182	30,766	30,015	30,164
Other Liabilities										
Pension and Other Postretirement Benefit Obligations	32,309	32,309	32,309	32,309	32,309	32,309	32,309	32,309	32,309	32,309
Other Long-Term Liabilities	2,574	2,574	2,574	2,574	2,574	2,574	2,574	2,574	2,574	2,574
Total Other Liabilities	34,883	34,883	34,883	34,883	34,883	34,883	34,883	34,883	34,883	34,883
Long-Term Debt	13,442	15,484	16,754	12,951	9,073	5,742	2,871	392	(399)	(399)
Net Assets										
Fund Balance (Unrestricted)	75,548	75,593	76,090	77,933	82,013	90,481	99,390	108,805	119,036	129,061
Temporarily Restricted Fund Balance	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074
Permanently Restricted Net Assets	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326
Total Fund	83,948	83,993	84,490	86,333	90,413	98,881	107,790	117,205	127,436	137,461
Total Liabilities & Net Assets	**$158,997**	**$161,144**	**$164,171**	**$162,841**	**$163,751**	**$169,171**	**$175,726**	**$183,246**	**$191,935**	**$202,109**

(CVMC)

Filter | Financial Charts | Capital Analysis | Control

		Projection Years								
	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
Statement of Changes in Net Assets										
Unrestricted Net Assets:										
Beginning Unrestricted Net Assets	$69,449	$75,548	$75,593	$76,090	$77,933	$82,013	$90,481	$99,390	$108,805	$119,036
Net Income (Loss)	(3,901)	4,045	4,497	5,843	8,080	8,468	8,909	9,415	10,231	10,025
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Transfers (to) from Affiliates	0	0	0	0	0	0	0	0	0	0
Restricted Contributions Used for Property Acquisitions	0	0	0	0	0	0	0	0	0	0
Extraordinary Gain (Loss)	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Additional Minimum Pension Liability	10,000	(4,000)	(4,000)	(4,000)	(4,000)	0	0	0	0	0
Other Unrestricted Activity	0	0	0	0	0	0	0	0	0	0
Increase (Decrease) in Unrestricted Net Assets	6,099	45	497	1,843	4,080	8,468	8,909	9,415	10,231	10,025
Total Unrestricted Net Assets	75,548	75,593	76,090	77,933	82,013	90,481	99,390	108,805	119,036	129,061
Temporarily Restricted Net Assets:										
Beginning Temporarily Restricted Net Assets	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Net Assets Released from Restrictions	0	0	0	0	0	0	0	0	0	0
Cumulative Effect of a Change in Accounting Principle	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Temporarily Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Temporarily Restricted Net Assets	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074	5,074
Permanently Restricted Net Assets:										
Beginning Permanently Restricted Net Assets	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326
Contributions	0	0	0	0	0	0	0	0	0	0
Change in Net Unrealized Gain/Loss	0	0	0	0	0	0	0	0	0	0
Restricted Investment Income	0	0	0	0	0	0	0	0	0	0
Other Restricted Activity	0	0	0	0	0	0	0	0	0	0
Incr. (Decr.) in Permanently Restricted Net Assets	0	0	0	0	0	0	0	0	0	0
Ending Balance Permanently Restricted Net Assets	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326	3,326
Total Net Assets	**$83,948**	**$83,993**	**$84,490**	**$86,333**	**$90,413**	**$98,881**	**$107,790**	**$117,205**	**$127,436**	**$137,461**

(CVMC)

Filter | Financial Charts | Capital Analysis | Control

		Projection Years								
	2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cash Flow Statement										
Sources of Cash:										
Excess of Revenues over Expenses										
from Operations	$2,050	$2,172	$2,963	$4,250	$6,426	$6,670	$6,913	$7,230	$7,863	$7,458
Net Nonoperating Income, Excluding										
Interest Income and Expense	(5,951)	1,873	0	0	0	0	0	0	0	0
Extraordinary Items, Transfers and Other	0	0	0	0	0	0	0	0	0	0
Items Not Affecting Working Capital:										
Depreciation	9,716	10,108	12,728	13,827	13,500	12,673	11,958	10,812	10,065	9,893
Amortization of Financing Costs	0	0	0	0	0	0	0	0	0	0
Other	10,000	(4,000)	(4,000)	(4,000)	(4,000)	0	0	0	0	0
Long Term Debt Proceeds	0	5,000	5,000	0	0	0	0	0	0	0
Total Sources of Cash	15,815	15,153	16,691	14,077	15,926	19,343	18,871	18,042	17,928	17,351
Uses of Cash:										
Change in Working Capital, Excluding										
Current Portion of Debt	$87	$6	$670	$476	$413	$225	$152	$176	$266	$216
Additions to Property, Plant										
& Equipment, net	13,000	14,100	10,301	10,299	10,300	10,301	10,609	10,927	11,255	11,593
Long Term Debt Principal										
Repayments	2,649	2,717	2,959	3,730	3,803	3,878	3,331	2,871	2,480	790
Total Uses of Cash	15,736	16,823	13,930	14,505	14,516	14,404	14,092	13,974	14,001	12,599
Cash Provided (Used) Prior to										
Interest Income	79	(1,670)	2,761	(428)	1,410	4,939	4,779	4,068	3,927	4,752
Cash Provided from Interest Income	0	0	1,534	1,593	1,654	1,798	1,996	2,185	2,368	2,567
Cash Used by Interest Expense	0	0	0	0	0	0	0	0	0	0
Cash Provided (Used)	79	(1,670)	4,295	1,165	3,064	6,737	6,775	6,253	6,295	7,319
Cash Balance, beginning of period	59,765	59,844	58,174	62,469	63,634	66,698	73,435	80,210	86,463	92,758
Cash Balance, end of period	$59,844	$58,174	$62,469	$63,634	$66,698	$73,435	$80,210	$86,463	$92,758	$100,077
Summary of Cash and Investments										
Operating Cash	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Board Designated Assets	51,444	49,774	54,069	55,234	58,298	65,035	71,810	78,063	84,358	91,677
Trusteed Assets and Restricted Funds	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400
Total	$59,844	$58,174	$62,469	$63,634	$66,698	$73,435	$80,210	$86,463	$92,758	$100,077

	A	E	F	G	H	I	J	K	L	M	N
2	(CVMC)										
3			Filter	Financial Charts	Capital Analysis	Control					
4											
5											
6			Projection Years								
7		2016 Actual	2017	2018	2019	2020	2021	2022	2023	2024	2025
215	**Statistics and Ratios**										
216											
217											
218	**Key Financial Statistics**										
219	Net Patient Revenue	181,865	182,054	188,352	194,879	201,629	208,613	215,837	223,303	231,034	239,030
220	Operating Income	2,050	2,172	2,963	4,250	6,426	6,670	6,913	7,230	7,863	7,458
221	Operating EBIDA	12,519	12,781	16,348	18,615	20,351	19,651	19,069	18,158	17,964	17,351
222	Excess Revenue over Expenses	(3,901)	4,045	4,497	5,843	8,080	8,468	8,909	9,415	10,231	10,025
223	EBIDA	6,568	14,654	17,882	20,208	22,005	21,449	21,065	20,343	20,332	19,918
224	Unrestricted Cash	51,444	49,774	54,069	55,234	58,298	65,035	71,810	78,063	84,358	91,677
225	Long Term Debt	13,442	15,484	16,754	12,951	9,073	5,742	2,871	392	(399)	(399)
226											
227	**FTE Analysis**										
228	Total FTE's	1,301	1,342	1,350	1,357	1,365	1,379	1,393	1,407	1,420	1,434
229											
230	**Profitability Ratios**										
231	Operating Margin	1.05%	1.12%	1.48%	2.06%	3.01%	3.02%	3.03%	3.06%	3.22%	2.96%
232	Operating EBIDA Margin	6.44%	6.61%	8.18%	9.01%	9.52%	8.90%	8.35%	7.69%	7.36%	6.88%
233	Excess Margin	(2.07%)	2.07%	2.23%	2.80%	3.75%	3.80%	3.87%	3.95%	4.15%	3.93%
234											
235	**Capital Structure Ratios**										
236	Debt to Capitalization	17.62%	19.61%	21.21%	17.69%	13.64%	9.11%	5.46%	2.57%	0.33%	(0.31%)
237	Debt Service Coverage	1.93	4.55	4.95	4.73	5.21	5.12	5.97	6.81	8.09	25.21
238	Debt Service / Revenues	1.81%	1.65%	1.79%	2.05%	1.96%	1.88%	1.53%	1.25%	1.02%	0.31%
239	Cushion	15.12	15.46	14.95	12.94	13.79	15.53	20.35	26.14	33.55	116.05
240											
241	**Liquidity Ratios**										
242	Days Cash on Hand	102.84	100.30	107.11	106.88	109.82	117.76	125.10	130.67	136.15	142.40
243	Cash to Debt	382.71%	321.45%	322.72%	426.48%	642.54%	1132.62%	2501.22%	19914.03%	(21142.36%)	(22976.69%)
244											
245	**Other Ratios**										
246	Average Age of Plant	10.62	11.21	9.90	10.11	11.36	13.10	14.88	17.46	19.76	21.10
247	Capital Spending Ratio	133.80%	139.49%	80.93%	74.48%	76.30%	81.28%	88.72%	101.06%	111.82%	117.18%
248											
249	**Working Capital Ratios**										
250	Days in Accounts Receivable	38.40	38.29	38.39	38.40	38.40	38.29	38.39	38.40	38.40	38.29
251	Days in A/P and Accrued Expenses	40.17	40.11	40.12	40.00	39.86	39.57	39.49	39.31	39.15	38.89

EXHIBIT D

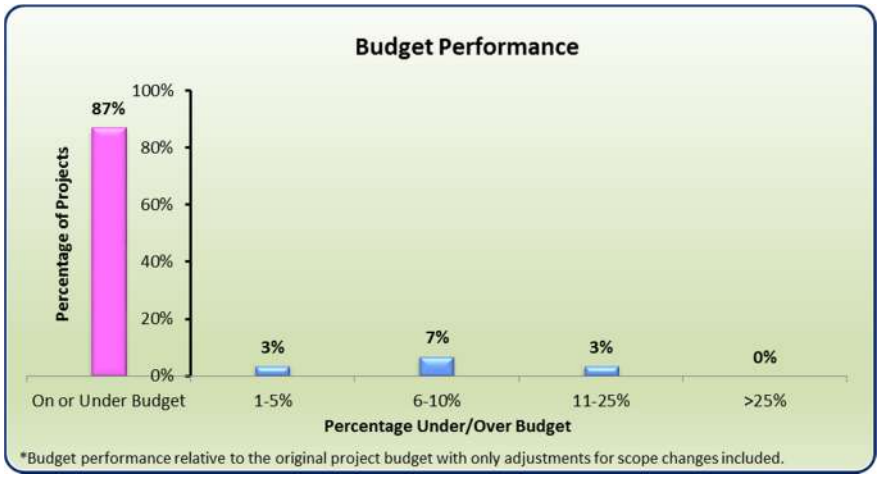
Staying On Budget – Epic's Track Record

Implementation Budget Performance

We understand the importance of on-budget implementations. 87% of major Epic projects[1] were completed on or under their budgets from August 2014 through January 2016. On average, organizations implementing these projects spent 87% of their original implementation budget.

Of the projects that spent more than their budget, none exceeded their budget by more than 25%. The most common causes for organizations to exceed their implementation estimate are an increase in project scope, an increase in project timeline, and project team staffing deficiencies.

Your Epic implementation team will help you to proactively monitor the budget and avoid potential overages (details on page 2).



"87% of major Epic projects were completed on or under their budgets"

Keys to Staying on Budget

Engage executives and operational leaders as owners of the install. Executive involvement sends a message to your organization about your commitment to the project—and to improving the way you deliver healthcare. Department and service line managers should work with your project team during the implementation to make the system successful in their areas. Our Readiness Programs provide you with a way to promote guided, focused stakeholder involvement and management throughout the implementation.

Establish an effective governance structure. Establish an executive steering committee to provide overall strategic direction for the implementation. This committee can then establish more detailed governance over each area and specialty. Epic can guide you through this process by helping you evaluate your current structures and making recommendations around how to adapt them for an effective implementation. Epic can also provide example governance models from successful customers.

Staff your project team with your best people. Project team members should be knowledgeable about your organization, motivated, well respected, and eager to create and adopt change. To help you identify the right people, Epic has staffing guides with information about the skills needed to succeed on a project team. In addition, consultations with Epic's HR staff can help you understand successful strategies and tools for hiring strong people.

Choose the right champions. Your project's clinical champions serve as a critical bridge between your project team and end users. They provide guidance around operational requirements, system design, and workflow and policy changes. They also support and promote the project to future end users, encourage their peers to participate in the design and validation of the system, and instill a sense of end-user ownership of your Epic system.

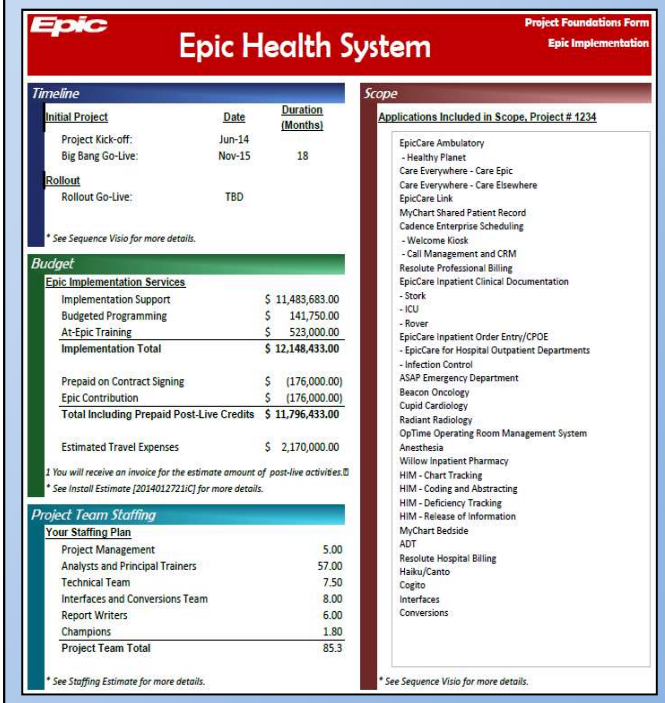
Focus on top-notch training for your end users. The stronger your pre-live training is, the more quickly you will begin to experience improvements in efficiency and productivity. Epic will provide specific, targeted recommendations for physician and other end-user training. In addition, Epic's comprehensive set of end-user training materials will give you a starting point in developing your curricula.

1. Includes all implementations of any of Epic's core application suites with budgets greater than $3.5 million.

Proactively Monitoring the Budget

Epic's Implementation Directors work with a dedicated team of Epic budget advisors to provide your project leadership with the tools and advice needed to monitor your budget effectively. The screenshots below are examples of tools we use to monitor and communicate the status of the budget. Using these tools helps us proactively identify budget risks so we can work together to develop corrective actions when necessary.

At the beginning of the project, we use the project foundations process to establish a shared understanding of budget, timeline, and scope.



Epic Health System

Project Foundations Form
Epic Implementation

Timeline

Initial Project	Date	Duration (Months)
Project Kick-off:	Jun-14	
Big Bang Go-Live:	Nov-15	18
Rollout		
Rollout Go-Live:	TBD	

* See Sequence Visio for more details.

Budget

Epic Implementation Services	
Implementation Support	$ 11,483,683.00
Budgeted Programming	$ 141,750.00
At-Epic Training	$ 523,000.00
Implementation Total	**$ 12,148,433.00**
Prepaid on Contract Signing	$ (176,000.00)
Epic Contribution	$ (176,000.00)
Total Including Prepaid Post-Live Credits	**$ 11,796,433.00**
Estimated Travel Expenses	$ 2,170,000.00

1 You will receive an invoice for the estimate amount of post-live activities.
* See Install Estimate [201401272 1iC] for more details.

Project Team Staffing

Your Staffing Plan	
Project Management	5.00
Analysts and Principal Trainers	57.00
Technical Team	7.50
Interfaces and Conversions Team	8.00
Report Writers	6.00
Champions	1.80
Project Team Total	85.3

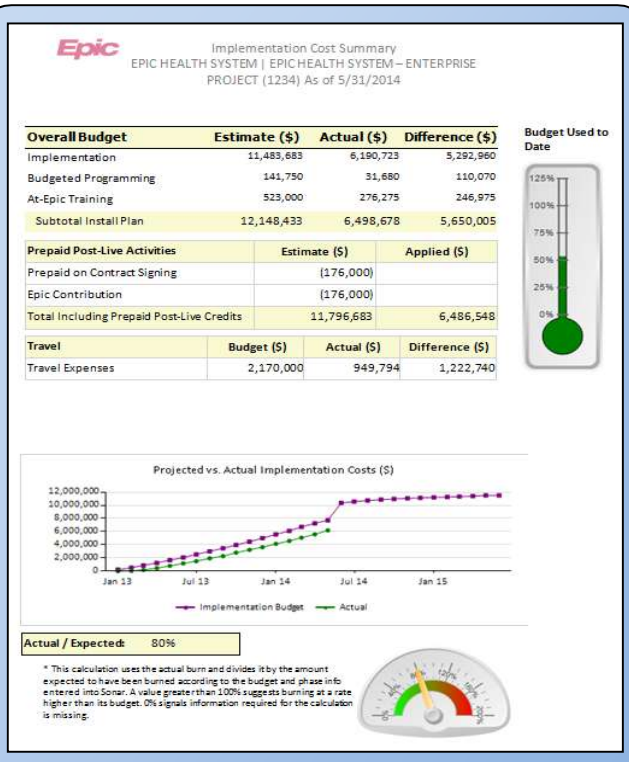
* See Staffing Estimate for more details.

Scope

Applications Included in Scope, Project # 1234

EpicCare Ambulatory
- Healthy Planet
Care Everywhere - Care Epic
Care Everywhere - Care Elsewhere
EpicCare Link
MyChart Shared Patient Record
Cadence Enterprise Scheduling
- Welcome Kiosk
- Call Management and CRM
Resolute Professional Billing
EpicCare Inpatient Clinical Documentation
- Stork
- ICU
- Rover
EpicCare Inpatient Order Entry/CPOE
- EpicCare for Hospital Outpatient Departments
- Infection Control
ASAP Emergency Department
Beacon Oncology
Cupid Cardiology
Radiant Radiology
OpTime Operating Room Management System
Anesthesia
Willow Inpatient Pharmacy
HIM - Chart Tracking
HIM - Coding and Abstracting
HIM - Deficiency Tracking
HIM - Release of Information
MyChart Bedside
ADT
Resolute Hospital Billing
Haiku/Canto
Cogito
Interfaces
Conversions

* See Sequence Visio for more details.



Implementation Cost Summary
EPIC HEALTH SYSTEM | EPIC HEALTH SYSTEM – ENTERPRISE
PROJECT (1234) As of 5/31/2014

Overall Budget	Estimate ($)	Actual ($)	Difference ($)
Implementation	11,483,683	6,190,723	5,292,960
Budgeted Programming	141,750	31,680	110,070
At-Epic Training	523,000	276,275	246,975
Subtotal Install Plan	12,148,433	6,498,678	5,650,005

Prepaid Post-Live Activities	Estimate ($)	Applied ($)
Prepaid on Contract Signing	(176,000)	
Epic Contribution	(176,000)	
Total Including Prepaid Post-Live Credits	11,796,683	6,486,548

Travel	Budget ($)	Actual ($)	Difference ($)
Travel Expenses	2,170,000	949,794	1,222,740

Budget Used to Date

Projected vs. Actual Implementation Costs ($)

Implementation Budget — Actual

Actual / Expected: 80%

* This calculation uses the actual burn and divides it by the amount expected to have been burned according to the budget and phase info entered into Sonar. A value greater than 100% suggests burning at a rate higher than its budget. 0% signals information required for the calculation is missing.

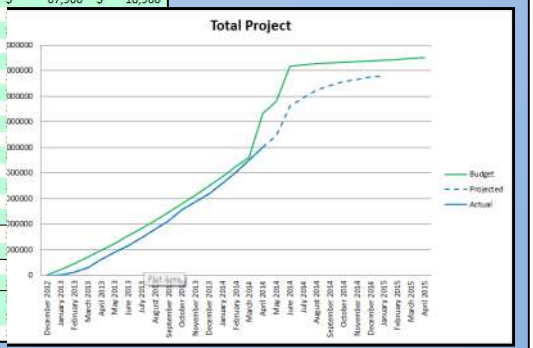
During the project, we provide monthly reports that track costs against the budget and help identify areas of concern.

Epic Health System

Most recent Install Plan from Accounting: May-14
Recommended Month: May-14
Refresh Data
Refresh Projections

	Budgeted Amount	Actual Charged	Future Projected	Projected Variance	Actual April 2014	Actual May 2014	Projection June 2014	Projection July 2014
General Project Coordination	$ 1,096,146	$ 523,529	$ 407,319	$ 165,299	$ 34,058	$ 38,540	$ 136,705	$ 41,677
ADT	$ 466,508	$ 314,501	$ 135,235	$ 16,772	$ 22,289	$ 24,269	$ 145,732	$ 18,912
ASAP	$ 456,716	$ 270,663	$ 175,609	$ 10,444	$ 19,360	$ 20,890	$ 129,435	$ 20,156
Beacon	$ 334,168	$ 161,919	$ 117,558	$ 54,691	$ 11,259	$ 14,644	$ 76,721	$ 17,180
Beaker	$ 666,052	$ 340,076	$ 277,993	$ 47,983	$ 39,066	$ 51,850	$ 197,096	$ 26,536
Cadence	$ 499,416	$ 232,511	$ 211,235	$ 55,670	$ 15,095	$ 26,074	$ 84,743	$ 12,880
Call Center/Nurse Triage	$ 42,592	$ 30,345	$ 2,655	$ 9,592	$ 450	$ 675	$ 1,235	$ 1,420
Care Everywhere	$ 19,500	$ 14,752	$ 2,790	$ 1,958	$ 5,400	$ 6,263	$ 2,010	$ 780
Claims	$ 300,200	$ 183,273	$ 107,535	$ 9,392	$ 24,278	$ 25,136	$ 40,023	$ 14,760
Clarity	$ 43,200	$ 21,753	$ 15,738	$ 5,709	$ 12,500	$ 2,850	$ 2,766	$ 5,080
Haiku	$ 5,400	$ 3,475	$ 1,037	$ 888	$ 200	$ 325	$ 200	$ 100
Health Information Management	$ 452,744	$ 268,495	$ 175,835	$ 8,414	$ 22,435	$ 25,373	$ 67,906	$ 18,960
HomeHealth	$ 438,432	$ 312,573	$ 122,357	$ 3,502	$ 28,865	$ 36,128		
Hospital Billing	$ 528,408	$ 260,713	$ 262,465	$ 5,230	$ 24,920	$ 30,005		
Identity	$ 20,400	$ 2,050	$ 1,325	$ 17,025	$ 125	$ 350		
Interface	$ 713,040	$ 429,423	$ 253,786	$ 29,831	$ 29,180	$ 31,858		
MR-Ambulatory	$ 665,820	$ 379,594	$ 284,583	$ 1,643	$ 48,623	$ 37,041		
MR-Inpatient Clinical Documentation	$ 669,344	$ 385,729	$ 264,839	$ 18,776	$ 27,538	$ 25,908		
MR-Inpatient Orders	$ 669,344	$ 343,548	$ 324,387	$ 1,409	$ 14,355	$ 29,686		
Radar	$ 4,080	$ 2,758	$ 938	$ 384	$ 250	$ 150		
Optime	$ 622,504	$ 381,388	$ 240,574	$ 542	$ 37,840	$ 41,743		
Radiant	$ 452,744	$ 307,824	$ 143,385	$ 1,535	$ 25,970	$ 33,060		
Resolute Professional Billing	$ 490,216	$ 298,543	$ 191,372	$ 301	$ 19,193	$ 29,400		
Systems/ HW	$ 150,320	$ 113,275	$ 14,491	$ 22,554	$ 14,050	$ 15,175		
Welcome	$ 8,640	$ 6,432	$ 1,085	$ 1,123	$ 175	$ 225		
Willow-Inpatient	$ 573,344	$ 335,314	$ 234,839	$ 3,191	$ 32,010	$ 45,116		
Total Implementation	**$ 10,389,278**	**$ 6,190,723**	**$ 3,887,253**	**$ 311,302**	**$ 510,119**	**$ 605,379**		
Buffer	$ 1,094,405	$ -	$ -	$ 1,094,405	$ -	$ -		
Budget with Buffer	$ 11,483,683	$ 6,190,723	$ 3,887,253	$ 1,405,707	$ -	$ -		
Programming Allowance	$ 141,750	$ 31,680	$ 31,680	$ 78,390	$ 6,488	$ 529		
Fixed Price Training - Application Training	$ 523,000	$ 276,275	$ -	$ 246,725	$ 3,200	$ -		
Implementation Subtotal	**$ 12,148,433**	**$ 6,498,678**	**$ 4,296,909**	**$ 1,484,097**	**$ 516,606**	**$ 605,908**		
Travel Costs	$ 2,170,000	$ 949,794	$ 1,148,535	$ 71,671	$ 89,774	$ 64,890		

Implementation Directors manage a budget toolkit to estimate future costs, identify potential overages, and take corrective action.



We monitor travel expenses for our implementation team closely. We book travel far in advance and negotiate competitive rates with airlines, hotels, and car rental agencies. Actual travel costs can fluctuate with additional on-site time and changing airline and hotel rates.